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ABSTRACT

Responding to the need for a universal and comprehensive approach for supporting all families with children from birth through age 5, the Early Childhood Initiative (ECI) was launched by a broad-based coalition of public and private partners brought together by the Cuyahoga County government in Ohio. This report describes the history of ECI, provides a statistical portrait of the early childhood population in Cuyahoga County, and examines ECI's scope and reach of in terms of the early childhood population in Cuyahoga County. In addition, the report details the evaluation findings of sub-studies examining the components of the program: (1) a one-time home visit by a nurse with first-time or teen mothers; (2) intensive home visits for at-risk children up to 3 years of age; (3) expansion and quality improvement of certified home-based child care; (4) child caregiver training, including training related to special needs child care; and (5) outreach and expansion of government-subsidized health insurance coverage for children of low-income families. Findings relate to capacity and systems, service provision and quality, and outcomes. Emerging through the ECI studies were five themes: taking the initiative to scale and expanding capacity; implementing leadership and collaboration; targeting and outreach; attaining and maintaining quality; and policy context and external factors. Both positive aspects and barriers and challenges are discussed for each theme. Recommendations are offered for the program's next 2-year phase. The report concludes by asserting that ECI has greatly enhanced the system of caring for children in Cuyahoga County, has been successful in meeting many of the objectives of the comprehensive package of programs and activities, and continues to pursue the goals of healthy children, effective parenting, and

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quality child care in Cuyahoga County. (Some chapters contain references.) (KB)

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Cuyahoga County Early Childhood Initiative Evaluation: Phase I Final Report

Executive Summary

February 2003

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Goldie Alvis, Senior Program Officer for Social Services, and Jay Talbot, Senior Program Officer for Civic Affairs and Manager of Special Projects, The Cleveland Foundation, actively participated in the conceptualization of the evaluation and in the interpretation and communication of findings.

The directors of the program areas under study, Joseph Gauntner, Director, Cuyahoga Health and Nutrition, Billie Osborne-Fears, Executive Director, Starting Point, and Melissa Manos, Director, Help Me Grow Collaborative of Cuyahoga County, shared in and facilitated the work of the evaluation team and helped in problem solving when challenges arose. They and their key staff contributed greatly to ensuring the accuracy and usefulness of this report. We would also like to acknowledge the contribution of the following agency staff: Robert Staib of CHN; Bill Goodrich, Constance Walker, and Beverly Williams of Starting Point; and Kate Bryant and Sue Pelleg of Help Me Grow.

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Finally, the research team would like to recognize the input of the families served by the ECI and the direct-service providers who participated in this research effort. Without their active participation, the evaluation would provide a far less comprehensive assessment of the accomplishments of the Initiative.

The Authors

Cuyahoga County
Early Childhood Initiative Evaluation:
Phase I Final Report

Executive Summary

Synopsis

In Cuyahoga County, Ohio, a community-wide, multifaceted initiative directed at children from birth through age 5 has been forged to meet the need for a universal and comprehensive approach for supporting all families with young children. In its first three years (July 1999 - June 2002), the Early Childhood Initiative (ECI) was launched by a broad-based coalition of public and private partners brought together by County government. The programs of the ECI have been woven into the fabric of local services and have met their target goals of numbers of clients served. Indications are that the majority of programs are producing the kinds of positive measurable changes in the community sought by the planners and funders. The ongoing emphasis of the Initiative is to continue to enhance the quality of those services, assess how they could be refined and expanded, and increase public awareness of the availability and importance of the efforts of the Initiative.

The Building of the ECI

Early in 1999, the Cuyahoga Board of County Commissioners announced that Cuyahoga County was entering into a public/private partnership focused on early childhood. The three-year Early Childhood Initiative involved securing an estimated $40-million in funding and brought together more than 50 community service agencies, hospitals, private funders and departments of County, State and Federal government. By July 1, 1999, the Early Childhood Initiative was officially in operation and all program components were available to serve all infants born in 2000. The Center on Urban Poverty and Social Change, Case Western Reserve University was requested to lead an evaluation of the Initiative, involving researchers from the Chapin Hall Center for Children at The University of Chicago and the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill.

Targeting children from birth through age five, and their parents, guardians and caregivers, the Early Childhood Initiative is centered on achieving three specific goals:

- To promote effective parenting;
- To provide children access to health care; and
- To assure the availability of quality child care.

To address these goals, the ECI encompasses five interrelated efforts: (1) Welcome Home—a one-time home visit by a nurse with all first-time or teen mothers and their newborns; (2) Early Start—intensive home visits with families whose children up to age 3 have been identified as facing developmental challenges due to family and environmental characteristics; (3) expansion and quality improvement of certified home-based child care; (4) training of child care providers to serve children with special needs; and (5) outreach and expansion of government-subsidized health insurance coverage for children of low-income families through enrollment in Healthy Start and other Medicaid programs.

The Distinguishing Features of the ECI

The Cuyahoga County Early Childhood Initiative is a community-wide undertaking, distinguished by a number of key characteristics. These aspects set the Initiative apart from other early child-focused efforts that emerged during the same period around the country. These characteristics include:

> **The scope of the public/private partnership** – Many efforts have merged public and private funds but no other example exhibited a funding partnership that included numerous private sector funders and agencies, and County government. Similarly, the operational structure of the Initiative represents an integrated service delivery approach, involving public and private sector elements.
>
> **The effective and simultaneous use of universal and targeted services across multiple program domains** – Most other efforts focusing on newborns and their parents tried to implement either home visitation efforts or center-based reform. Few other efforts have drawn together home visitation, child care, and health care all within a single package in the way the ECI has. This multi-sector approach, drawing on models of prevention and intervention, successfully wove together a diverse set of threads into a conceptually strong Initiative.
>
> **The commitment to evaluation** – Most other community-wide efforts have used administrative data to track changes or conducted experimental pilot studies. Few have invested in meaningful, ongoing evaluation studies to assess implementation and outcomes for the purpose of making programmatic improvements at the scale ECI has.
>
> **The continuous adaptability of the County to changes in state and federal policy directives** – During difficult economic and political times, the ECI has demonstrated considerable flexibility in adapting the components of the Initiative. These adaptations have included altering child care reimbursement rates, expansion of training programs, moving to establish quality assurance standards, dealing with management information systems challenges, and developing a pre-natal expansion of the home visiting component. Throughout the first three-year phase, the ECI leadership has faced and responded to the dilemmas inherent in implementing a complex initiative.
>
> **The governance structure** – The developers of the ECI sought to innovate by basing the operational structure of the Initiative within County government, while also establishing input and oversight from private sector funders through the formation of the ECI Partnership Committee.

Findings on Years 1 through 3 of the ECI

This report is the product of over two years of research on the early years of the Early Childhood Initiative, and follows on the findings of the Interim Report released in November

2001.[1] The evaluation of the ECI involved six sub-studies that examined the various dimensions of the Initiative. The multiple studies in the evaluation were designed to answer a number of important questions relevant to each program or dimension. Currently, some data collection and analysis activities are still ongoing and, as such, some outcomes and findings will be expanded in subsequent reports.

Greater detail on the findings to date of each sub-study is provided in the full report. Some of the overall highlights of the report include:

Capacity and Systems Findings:

- In 2.5 years of operation, the ECI reached nearly 83,000 Cuyahoga County children (prenatal through five years of age), and approximately 68% of children born since the start of ECI have received one or more ECI services.
- Since the start of ECI, Welcome Home visits have been made to over 19,700 new and teen parents, representing 86 percent of all those eligible for the service.
- Since the launch of ECI, 15,441 children, 69% under six months of age, have been referred for Early Start services.
- The Family Child Care Homes program led to the certification of 1,499 new home-based child care providers, a 150% increase since the start of the Initiative, and 74% of these providers received technical support visits.
- The Special Needs Child Care program has delivered technical assistance on behalf or nearly 1,200 children with special needs [based on data from families that consented to participate in the evaluation], trained over 900 providers, and helped more than 250 families through placement assistance.
- From the perspective of a sample of key informants, the Initiative has facilitated a cultural shift among the organizations involved to create a coordinated response to children's needs, established formal, structured collaborations that did not previously exist, facilitated cross-system referrals, and developed new linkages between community-based agencies and families across the County.
- From the perspective of a sample of key informants, however, some barriers remain, including concerns about long-term political support, long-term funding, and the availability of a sufficient and qualified labor pool.

Service Provision and Quality Findings:

- Infants are being served earlier in life as the Initiative progresses, with 63% of infants being served by three months of age in the most recent birth cohorts.
- More children born in 2000 were identified as needing Early Intervention services and were identified at an earlier age than prior to the Initiative.

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[1] See Coulton, C. and colleagues. (2001). *Cuyahoga County Early Childhood Initiative evaluation and research project, interim report.* Cleveland, OH: Case Western Reserve University, Center on Urban Poverty and Social Change, Mandel School of Applied Social Sciences. (Available at http://povertycenter.cwru.edu/)

- Similarly, Early Start home visits are being delivered much earlier in infants' lives, such that infants referred for service before their 6-month birthday receive an initial home visit within the first month of life.
- Early Start referrals with the highest level of risk are twice as likely to receive an initial home visit and engage in the program as those referrals with fewer presenting problems.
- On average, over a 9-month period Early Start families received 11.3 visits, approximately half the number of intended home visits, comparable to service levels achieved in similar early intervention programs.
- Improving the quality of care in family child care homes proved difficult. Over a 12-month period, the overall quality of care remained poor in a sample of family child care homes. However, the retention of quality was found to be correlated with factors that could be influenced by policymakers: a greater number of technical assistance visits, seeking providers with limited child caregiving experience pre-certification, and fewer children in care.
- During ECI, the percentage of children enrolling in Medicaid during the first month of life increased from 45% to 62%, and the percentage disenrolling within 13 months after initial enrollment decreased from 36% to 25%.

Outcome Findings:

- Enrollment of children under age 3 in regulated child care increased by 25% since the inception of the ECI, and 76% of 3- and 4-year-olds were enrolled in some type of preschool in 2001, compared to 57% nationally.
- Welcome Home visits provided participants useful information in identifying health and related resources for their children and in offering guidance in basic child care strategies.
- A greater number of Early Start services had modest predictive ability in explaining a participant's reduced risk for physical abuse and increased sense of competence and comfort in caring for her child.
- Over the three years, family child care provider income increased 58%, on average, and the mean number of children in care increased by 53% (from 3.0 to 4.6 children).
- The receipt of TA and training related to caring for children with special needs was found to be associated with a greater willingness to care for children with special needs.
- Eighty percent of children with special needs whose caregivers received TA remained in their child care placement for six months or more.
- The percent of medically uninsured children under age 6 in Cuyahoga County decreased from 10 percent to 2 percent between 1998 and 2001 (latest data available).
- The proportion of infants enrolled in Medicaid who received a well-baby visit within the first month of life increased from 30% to 43% between 1998 and 2001, and the proportion receiving the intended five visits during the first year of life nearly doubled (from 11% to 21%).

Underlying Themes Identified in the Evaluation

Beyond specific program and system-level findings, five cross-cutting themes emerged through the study of the ECI that offer a broader understanding of the results. These themes include: (1) expanding capacity and going to scale, (2) leadership and collaboration, (3) targeting and outreach, (4) attaining and maintaining quality, and (5) policy context and external factors. The themes involve both positive aspects of developing and implementing the Initiative, as well as barriers and challenges that have emerged. Each theme is discussed in turn.

1. Taking the Initiative to scale and expanding capacity

Throughout the research on the Initiative, a consistent theme was the dramatic scale of the undertaking. In practice, "going to scale" could include strategies both to expand the breadth or coverage of programs and to deepen or strengthen the connections among local service providers. In the case of ECI, both strategies were employed. The developers of the ECI opted early on to fashion an Initiative that would be taken to scale quickly, rather than beginning with small pilot work touching only a few children, families, and caregivers. This ambitious goal of beginning programs on a broad scale grew out of the developers' understanding that access to health care, quality child care, and early home visiting had proven positive impacts. Their desire was to immediately reach many families with identified needs throughout the County, and improve health and social indicators for the entire population of young children

An important feature of the ECI stems from the decision to deliver the comprehensive array of services, not by creating a new institutional structure, but by building upon existing community based agencies and local service providers. Taking the Initiative to scale included both building on the capacity of existing programs coupled with greatly expanding services to new target populations. The strategies for implementing on a broad scale involved developing program capacities to effectively handle requests from families and providers, and expanding outreach and recruitment activities to attract participants to the programs and services. The Initiative's need to work with numerous service providers across various program areas to effect change, meant that the objective of going did involve some operational challenges.

A review of the available evidence reveals that the scale of the ECI programs grew rapidly after the Initiative was launched in July 1999. At least one program of the ECI is now reaching the vast majority of newborns and their families and, as intended, the reach is simultaneously broad and focused. This is reflected in the fact that in its first 2.5 years, the ECI reached nearly 83,000 Cuyahoga County children prenatal through five years of age. Furthermore, approximately 68 percent of children born since July 1999 have received one or more ECI services. The majority of families avail themselves of only one ECI service but others, especially families in poor neighborhoods, are involved with several components of the ECI along with other public programs. This pattern of service is consistent with a model system that is universal but also intensive for challenged families and vulnerable children.

2. Collaboration and leadership

A second theme that emerged relates closely to the effective implementation of a broad scale initiative such as the ECI. To take the Initiative to scale quickly required marked collaboration among the numerous implementing agencies, as well as key leadership at the funder, County, and agency-level. The developers of the Initiative quickly instituted the ECI

Partnership Committee to provide leadership at the funder level, and created the ECI Operations Management Committee to manage ongoing implementation of the Initiative through a collaborative team approach.

One area in which there is clear evidence of leadership and collaboration is in how the Initiative has responded to challenges identified through the evaluation process. The Interim Evaluation Report suggested three areas for improvement. For this report an assessment was made of the extent to which actions had been taken to deal with the issues since late 2001.

- *Smoothing transitions for children between programs that serve children ages birth to three and three to five, and between three to five and kindergarten.* For a truly integrated system of care for young children, transitions among programs must be seamless for these groups of children and their parents. The Help Me Grow collaborative provided leadership on this issue for the ECI and altered its mission to reflect an expanded target population of children prenatal to age five. Actions on this front included the formulation of a comprehensive transition planning strategy, encompassing services from prenatal care through the kindergarten transition working closely with representatives of local school districts, Head Start, Early Head Start, Starting Point, hospitals, and social service agencies.
- *Improving communication among the Initiative's components, between the ECI and the funders and representatives of the business community, and between the Initiative and the general public.* These multiple dimensions of communication were addressed in a variety of ways. Communication within the Initiative and among its collaborating agencies continues to improve at multiple levels. Currently, there is evidence that internal communication has improved at the level of the ECI Operations Committee, among senior staff of the three principal implementing agencies, and between line staff across the three principal agencies. The ECI's communication with community service providers and business and civic leadership outside the Initiative, though improving, continues to be perceived as somewhat inadequate. The current name of the Initiative and the marketing linkage among its programs are seen as continuing barriers to expanded community recognition of the Initiative.
- *Assuring political and economic sustainability for the Early Childhood Initiative.* In response to this concern the core leadership of the ECI undertook to solidify funder and community support for the Initiative. To date, the financial stability of the Initiative has been assured in the short-term due to multi-year commitments of $8 million from the Cuyahoga Board of County Commissioners and over $5.2 million in private sector funding. The willingness of the County Commissioners to allocate significant resources to the Initiative in the midst of County and State budgetary difficulties can be seen as a clear indication that the ECI enjoys political support. Questions do remain, however, about how to sustain the ECI's existing programs on a long-term basis, as well as the ability of the ECI to add complementary service enhancements in future years.

3. Targeting and outreach

In the development of a community-wide initiative such as the ECI, issues of programmatic targeting and participant outreach must be addressed on multiple levels. In particular, one of ECI's exemplary strategies was its implicit attempt to embed more intensive services for those with the greatest need within the context of universal services designed to reach the full population of families with children birth through age 5. As such, under ECI all first time and teen parents received a Welcome Home visit and all lower-income children were ensured access to health care and a medical home. In addition to providing important supports for all children, this strategy had the added benefit of identifying, in a more systematic manner, those children in need of additional support, health care, or child care services. Evidence from the evaluation suggests that ECI made marked progress in accomplishing both its universal and targeting missions.

The overriding emphasis of the Initiative is on improving the well-being of young children and their families. To do this, strategies were targeted to various caregiving dimensions, recognizing that all services must be tailored within the context of the child's family and community. In operation, this means that services were targeted principally to the child's parents, other caregivers, and the institutions that shape the daily lives of children. So, for example, the quality child care components of the ECI focused on improving the care experiences of children in family child homes and in centers. This approach required recruiting individuals to become home-based care providers and delivering in-home quality enhancement services to certified providers. In regard to improving services for children with special needs, the targeting of services focused on individual children by providing technical assistance and training to the child care staff caring for those children. Regardless of the focal point of the service provision, however, the end goal was to benefit the well-being of the children.

Decisions about the targeting of services were driven both by beliefs about the logic of prevention and intervention activities, as well as resource and capacity levels. Although ECI is universal in many respects, there was awareness that children and families at-risk must be provided services and supports that reduce their chances of negative outcomes. These at-risk children were the children who were most likely to benefit from receipt of several ECI services. The research found that, among those children served by ECI, approximately one-quarter of all children under age 6 and 34% of infants under age one received services from more than one ECI component. The most frequent combination of services was Welcome Home and Healthy Start/Medicaid. ECI families also relied on a number of other public services, such as Food Stamps. Children that received multiple and intensive ECI services were concentrated in low-income neighborhoods within the City of Cleveland where the need is greatest. Although there are many entry points into ECI, the first contact for recent birth cohorts was often Welcome Home. Ideally, Welcome Home identifies needs and links families to Early Start, Medicaid/Healthy Start, child care or other early childhood programs. Welcome Home targets first time and teen mothers with a visit just after they return home with their newborn, and approximately 40 percent of births in 2000 were eligible for a Welcome Home visit.

With respect to outreach to participants, the ECI needed to engage families in services such as home visiting and public health insurance coverage, and recruit qualified individuals to become home-based child care providers. The challenges of doing each required the use of tailored marketing strategies, training of program staff, the establishment of client-friendly access points (e.g., Hotline service), and efficient referral networks among agencies. The success of these strategies was demonstrated, in part, by the rising levels of participation in ECI programs over the first three years. A remaining challenge, however, is continuing to assess the extent to which those families that used ECI services were the families who could benefit the most from the services. On outreach to providers, the challenge was in attracting individuals who would be successful as home-based child care providers given the kinds of supports provided through the ECI.

4. Attaining and maintaining quality

In launching a set of complementary community programs on a broad scale, a major challenge is to balance the goal of increasing service capacity with the goal of providing high quality services. For the ECI, the majority of service targets that had been established at the outset were reached in the Initiative's second year. Comparatively, in this early period less emphasis was placed on refining and adapting program services, a process that was more fully engaged in 2001.

It bears noting that an overarching challenge on this front was to understand the varying perspectives on how to define quality. Delivering a high quality program can be determined by consistency in content and structure (e.g., extent to which program implementation adheres to the model or to best practice guidelines); agency or institutional standards (e.g., smoothness of organizational functioning and management, effective and efficient use of funds); or participant satisfaction and outcomes. The available evidence from the study of ECI showed that the parent/family perspective on quality differed from program staff, directors, and funders. Beyond this, State/County certification requirements and national standards (e.g., accreditation) for programs provide an additional lens for quantifying and judging quality.

Across the ECI programs, the goal of establishing and maintaining high quality services faced a variety of issues. These challenges included variation in the implementation of program models, variation in the skill levels among service providers, balancing the role of quality assurance and compliance activities, and handling differences among client and staff expectations about program objectives. Data from the evaluation show that in terms of some measures of process quality (i.e., how well programs were implemented), there were marked improvements over the first three years of the Initiative. In general, programs reached more children at younger ages, reduced wait times for referral and contact, and delivered more program services in shorter times as the Initiative developed over the first three years. These improvements suggest more efficient outreach to families and handling of requests for service.

Due to the need to examine trends over time, there are limited data as yet on the extent to which the ECI programs directly benefit participants. The data available for this report do show that the Initiative has made considerable progress on the quality front in many areas, but that work remains to be done. For example, several community-level indicators have made notable positive improvements (e.g., health insurance coverage, family economic self-sufficiency, enrollment of children in regulated child care). Parent report data on satisfaction with home visiting are overwhelmingly positive and some subgroups of at-risk families showed noteworthy benefits at 11-month follow-up. Parents of children with special needs also reported that services for their children were beneficial and, regarding the stability of their care, 80% reported that the child had stayed in the same child care program for six months or longer. However, objective assessments of care quality among a sample of home-based providers showed most had not improved over one year, though retention of quality was found to be greatest among specific categories of providers. Further, no improvements have occurred in some community-level measures such as the incidence of low birth weight births and child maltreatment rates.

5. Policy context and external factors

As a community-wide undertaking, the ECI was launched and implemented within a broader social and political context. To examine the ECI in isolation from the major external forces that have impacted it, is misguided and fails to address the totality of the Initiative's existence. These external forces have influenced the scope, scale, and ongoing implementation of the ECI programs and impacted the children and families of Cuyahoga County. These major factors included the implementation of welfare reform, the State budgetary situation and the economy, State policies relating to some ECI programs (e.g., certification, program eligibility and coverage, reimbursement rates), and general labor market characteristics.

A significant influencing factor for the ECI was welfare reform in Ohio, implemented in October 1997. Known as Ohio Works First (OWF), it required that parents receiving welfare assistance participate in work and it limited receipt of cash assistance to 36 months. The number of children under 6 on OWF fell from approximately 32,000 in 1997 to 12,000 in 2001. Welfare reform had many ramifications for young families and for early childhood programs, notable among them the large increase in demand for child care. To meet this need, the County more than doubled the number of child care vouchers that it provided to the welfare and working poor. Early on, many families were referred to Early Start as part of their OWF self-sufficiency plan, but as welfare caseloads fell rapidly, OWF became a much less central referral source for ECI programs. Another important policy aspect of welfare reform was that falling caseloads freed up TANF funds to be used for other non-assistance purposes. The ECI benefited from these flexible dollars in many of its programs, specifically the quality child care efforts.

In regard to the State economic context, the ECI has relied on several key funding streams to support its programs. During the initial phase of the ECI, the northeast Ohio region and the nation as a whole experienced the greatest, sustained economic growth period in recent times. In Cuyahoga County, most people who left welfare were able to get jobs and earned more than they had received on welfare. The poverty rate for families with children under 5 headed by females fell by 10 percentage points. Nevertheless, the typical single female-headed family only earned enough to live at or near the poverty line (approximately $14,000 for a family of three). In late 2002, the nation and the region entered a recessionary period and some of these gains have begun to erode. The State of Ohio's fiscal crisis led to reduced funding availability for ECI programs beginning in 2002. In addition, the State's decision to withhold a large amount of TANF funding that had been designated for Cuyahoga County led to further difficulties in guaranteeing County-level funds for the Initiative.

As with all program initiatives, the ECI has been impacted by policies and requirements that originate from outside its structure. Over the course of the first three years, eligibility rules (e.g., Medicaid expansion; frequency of eligibility redetermination), and service coverage/reimbursement rates (e.g., child care per diem) have changed, affecting the agencies implementing ECI's programs and the client families themselves. In a climate of reduced funding availability from governmental sources, this largely translated into greater restrictions on programs, service reductions, and further limitation on available resources.

Recommendations

The ambitious effort associated with taking the ECI to scale in a relatively short time period, though remarkably successful, was accompanied by a number of operational challenges. The ECI leadership launched efforts to address many of these issues in 2002 and some remain to be fully investigated. As of the conclusion of first phase of the ECI, the following recommendations are offered as areas where the Initiative may need to focus its efforts as it enters its next two-year phase. These include:

1. Continue quality assurance and improvement activities in the ECI programs, to ensure clarity of purpose, adequate staff training, and effective use of program resources.
2. Carefully monitor the expansion and enhancement of prenatal services underway through the Initiative and its impact on program content, staff qualifications, and participant outreach.
3. Examine the participant characteristics and contextual barriers that limit access to key ECI services by all those identified as in need of additional assistance.
4. Monitor the effectiveness of the outreach efforts for enrolling eligible children and families into ECI programs, and assess the relationship between outreach and targeting of services.
5. Continue to work to increase public awareness of the ECI campaign and its components to encourage families to make use of its services and to engender broader public support of the Initiative.
6. Continue to foster collaboration among all ECI providers through both County-level efforts to remove institutional barriers to data sharing, and joint case planning and community-level efforts to enhance resource sharing.
7. Continue to support the effective use of evaluation data for programmatic improvement, through refining and improving data systems and promoting a collaborative relationship between program staff and the evaluation team.

Overall Assessment

The Early Childhood Initiative has greatly enhanced the system of caring for children in Cuyahoga County. The County has convened and sustained a vital group of private and public collaborators to guide the Initiative, and these deliberations have changed the system in the County regarding caring for all children.

This Phase I Final Report provides an assessment of implementation of the ECI against which future results can and should be measured. It also offers recommendations for refinements aimed at enhancing the effectiveness of this complex and visionary Initiative and to improve the ability of the ECI Partnership to evaluate its ongoing impact. The ECI has been successful in meeting many of the objectives of the comprehensive package of programs and activities that have been undertaken and continues to pursue the commendable goals of healthy children, effective parenting, and quality child care in Cuyahoga County.

Cuyahoga County Early Childhood Initiative Evaluation: Phase I Final Report

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Executive Summary
Team

1. Introduction: Developing a Comprehensive Community Initiative on Early Childhood
Rob Fischer & Claudia Coulton

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7. Healthy Start / Medicaid Expansion
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Chapter 1 - Introduction

Developing a Comprehensive Community Initiative on Early Childhood

Rob Fischer and Claudia Coulton

Chapter Summary

Cuyahoga County's Early Childhood Initiative (ECI), was forged by public and private stakeholders who were influenced by national, state, and local research, practice and policies. To understand the process of evaluating the Initiative and the findings themselves, it is essential to understand the origin of the ECI and its structure. This chapter presents a brief description of the demographics of Cuyahoga County and history of the ECI, as well as describes the Initiative's funding, organization, programs, and evaluation. The chapter also addresses developments related to the ECI since its initial launch in 1999 and discusses its current prospects for short-term sustainability.

A number of key points emerge within this presentation. These include:

- The ECI developed within the context of a local, regional, and national movement to focus on and invest in the early development of young children.
- Funding for the first three-year phase of the ECI was secured from a Partnership of public and private funders. Governmental funding included local general fund monies allocated by the Board of County Commissioners as well as State and Federal monies flowing through the County. In addition, 23 private funders contributed nearly $10 million to the Initiative.
- The organizational and decision making structure of the ECI is multi-layered and builds on existing relationships within the community. The ECI Partnership Committee is the board-level group of funders who advise the County Commissioners on the ECI. The ECI Operations Management Committee is comprised of funder representatives, program heads, and County staff, and is the group that oversees the ongoing implementation of the Initiative. The programs of the ECI are implemented through three coordinating agencies (Help Me Grow, Starting Point, and Cuyahoga Health & Nutrition) and, in total, involve over 60 hospitals and community agencies in direct delivery of services, along with over 1,500 newly certified family child care homes.
- The ECI's developers selected programmatic elements that had been implemented in other communities and would be appropriate to fill notable gaps in the existing system and maintain established programs for serving young children and their families within Cuyahoga County.
- The evaluation of the ECI was designed to achieve the dual goals of providing useful information for program improvement activities, as well as documenting the effects of the Initiative. The evaluation draws on a variety of data sources, methodologies, and types of analyses to accomplish these goals.
- The near-term sustainability of the ECI has been secured, in that a second two-year phase of the Initiative (July 2002 - June 2004) has been approved and the majority of funding has been committed.

Geographic Context of the ECI - Cuyahoga County, Ohio

Cuyahoga County is the 23rd largest county in the United States and is the most populous county in Ohio, with one out of every eight people in Ohio residing in the County. The County comprises 458 square miles, and contains a total of 59 neighborhoods (within the City of Cleveland) and suburban municipalities. Cuyahoga County is located in northeastern Ohio and is bordered on the north by Lake Erie. See Figure 1.1 for a map of Cuyahoga County.

Based on 2000 Census data, Cuyahoga County has 1,393,978 residents. Between 1990 and 2000, the County experienced a 1.3% decline in its total population, a 2.9% increase in the child population under age 18, and a 8.1% decrease in the child population under age 6 (i.e., the ECI target population). This section provides a brief demographic sketch of the population of Cuyahoga County based on 2000 Census data.

Fully one-fourth of the County's residents are under the age of 18 (nearly 350,000 children and youth). Of those under age 18, 32% are under age 6, 24% are between ages 6 and 9, 29% are between ages 10 and 14, and 15% are between ages 15 and 17. Thus, the percent of children under age 6 (i.e., the ECI's primary target population) makes up the largest segment of the population under age 18. In fact, children under age 6 represent one out of every three County residents under age 18, and one out of every twelve residents in Cuyahoga County.

The racial profile of the County is 67% non-Hispanic White, 27% African American, 2% Asian, <1% Native American, and 3% other races. The proportion of persons reporting Hispanic or Latino origin is 3%. A majority of households (62%) in the County are family households (i.e., related individuals residing together) and 38% are non-family households. Among the family households with children under 18, 63% are married-couple families and 31% are female-headed families.

Countywide, more than 80% of the population age 25 and over has a high school degree, and 25% has a Bachelor's degree or higher. The median household income is $39,168. This is lower than the median household income for the State and the nation, $40,956 and $41,994, respectively. One out of every ten families in Cuyahoga County lives in poverty. Twenty-two percent of families with children under age 6 live in poverty.

Sixty-two percent of the population age 16 and over is in the labor force. Sixty-five percent of females age 16 and over with children under age 6 are in the labor force. Among the children under age 6, 60% reside with a parent (or both parents) in the labor force. The industries that employ the most Cuyahoga County residents are educational, health, and social services (21.7%), manufacturing (16.1%), retail trade (10.8%), and professional, scientific, management, and administrative services (10.1%).

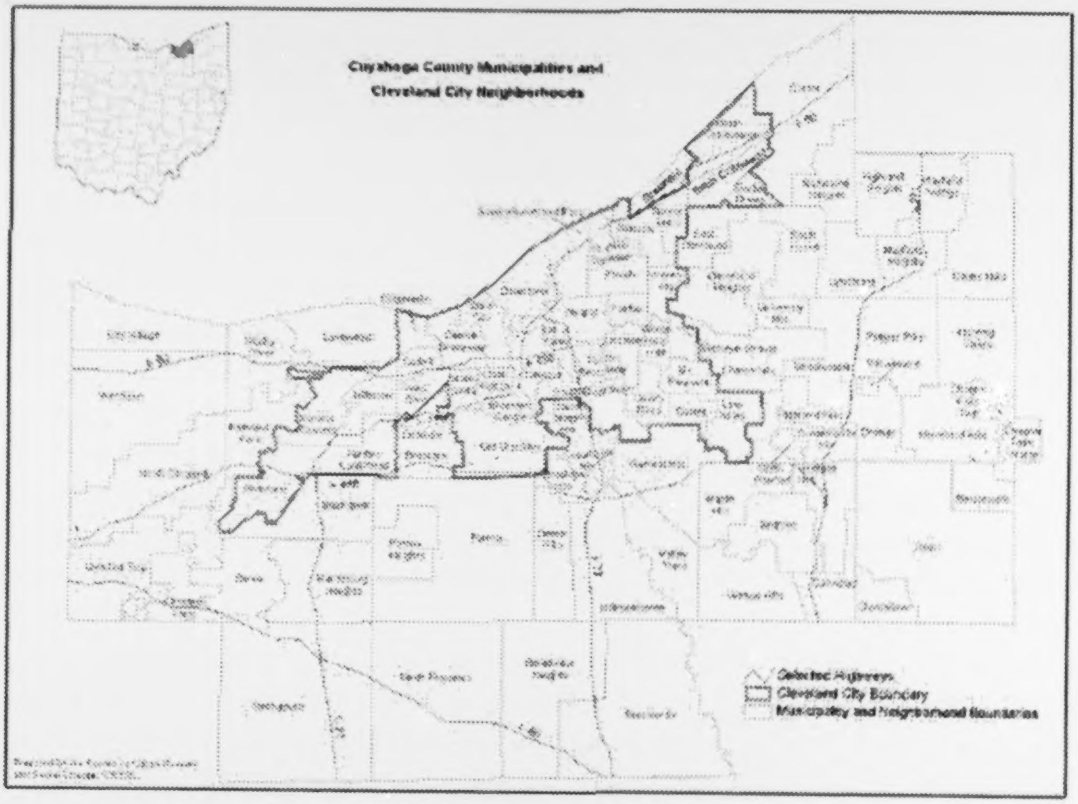
Cuyahoga County Municipalities and
Cleveland City Neighborhoods
Selected Highways
Cleveland City Boundary
Municipality and Neighborhood Boundaries

Figure 1.1 Map of Cuyahoga County

A Brief History of the Early Childhood Initiative[1]

The Early Childhood Initiative emerged from an interest in community prevention strategies for young children. Preventive programs to intervene during the earliest years of life have been developed and studied over the last several decades. These studies raised awareness of both the cost savings as well as the positive impacts on children and families that could be achieved. The Carnegie Corporation's report, *Starting Points – Meeting the Needs of Our Youngest Chil*[illegible], was released in 1994. It termed the American situation for young children a "quiet crisis," emphasizing the importance of early childhood interventions and promoting community collaboration. In addition, articles, such as Sharon Begley's "Your Child's Brain" in *Newsweek*, Feb. 19, 1996, promoted support for early intervention based upon neurological research on infants. The April 1997 White House *Conference on Early Childhood Development and Learning: What New Research on the Brain Tells Us About Our Youngest Children*, involved early childhood researchers addressing a diverse audience, including representatives of

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[1] Section adapted from Allen, S. (2001). *Policy Context for the Early Childhood Initiative, Cuyahoga County, Ohio* (Working Paper). Cleveland, OH: Case Western Reserve University, Center on Urban Poverty and Social Change.

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funding and policy organizations. One Cuyahoga County Commissioner attended the White House Conference.

As a result of heightened awareness of the importance of the earliest years of children's lives, foundations and state and local governments expanded their support of early intervention strategies. In 1998, early childhood was included on the agenda of the National Conference of State Legislatures, with particular emphasis on child care, school readiness, family support and home visits, maternal and child health, and early childhood program infrastructure and coordination. By 1998, 42 state governors had made early childhood an emphasis of state initiatives. These initiatives were characterized by public/private partnerships combined with executive-level, corporate-sector leadership. The focus had been to develop innovative strategies that target whole systems, not just individual programs. Different communities took varying approaches. United Way brokered three hundred community-based public/private partnerships with such corporations as BankBoston, Honeywell Corporation, and Bank of America under the Success by Six program. Other programs included EduCare in Denver, the Early Childhood Initiative in Pittsburgh, and Family Smart/Kid Friendly in Racine, Wisconsin.

The ECI evolved out of this national awareness and the belief that community mobilization and partnership were essential to early intervention in the lives of children and families. Cuyahoga County's Early Childhood Initiative possesses many important strategies that entail system change and collaboration. ECI used a pro-active systems-wide approach to assure that all children 0 to 5 years of age, not just those deemed to be "at risk" of developing delays, get the best possible start as a base for achieving maximum potential in life. This involved reaching a consensus on gaps in existing services in the County and developing strategies to address the identified needs. An integrated approach was designed using five program components that focus on the three key goals: effective parenting, healthy children, and quality child care. The stakeholders identified a number of community-level indicators the ECI was designed to impact including: reducing child abuse and neglect, increasing economic self-sufficiency, promoting access to health insurance and health care, decreasing child deaths, and increasing enrollment in early childhood programs including Head Start, preschools and certified child care.

The development of the ECI was driven by serious concerns for the social, emotional, and physical well-being of young children in Cuyahoga County throughout the 1990s. In 1995, a series of "Threats to Children" community forums was held to gather information about the well-being of children in the County and design strategies to bring about system improvement (e.g., intervening earlier with young children and families and using community-based entities to reach families). Additionally, the County Child Fatality Review in 1996 to 1997 brought to light the high incidence of child morbidity and mortality in Cuyahoga County in comparison with many of the other counties in Ohio.

Cuyahoga County Commissioners, Tim McCormack, Jimmy Dimora, and Jane Campbell, initiated the movement to develop collaborative funding strategies to support a community-based Early Childhood Initiative. In January 1998, the Cuyahoga County Family and Children First Council met to begin planning the Initiative. By March 1998, the Early Childhood Advisory Committee had been formed and met to begin planning. This committee combined key public and private sector individuals, such as Jay Talbot of the Cleveland Foundation and Bette Meyer of Cuyahoga County Health and Human Services. As the planning year progressed, the Cleveland, Mt. Sinai, and TRW Foundations coordinated meetings with other interested private funders, eventually developing a group of 23. Foundation and corporate commitments to providing the local funding needed for the ECI was finalized in May 1999.

In June 1999, the Cuyahoga Board of County Commissioners announced that Cuyahoga County was entering into a public-private partnership with more than 50 community service agencies, hospitals, private funders and departments of County, State and Federal government to launch a three-year, projected $40-million Early Childhood Initiative (ECI). By July 1, 1999 the Early Childhood Initiative was officially in operation. All program components of the ECI were in full effect beginning with infants born in 2000. Shortly thereafter, the Center on Urban Poverty and Social Change, Case Western Reserve University was requested to lead an evaluation of the Initiative, that also involved researchers from the Chapin Hall Center for Children at The University of Chicago and the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill.

Targeting children from birth through age five, and their parents, guardians and caregivers, the Early Childhood Initiative is centered on achieving three specific goals:

- To promote effective parenting
- To ensure children access to health care
- To guarantee the availability of quality child care

Though the Initiative's goals may be simply stated, they were of unprecedented ambition. In a population center of 1.3 million, the ECI Partnership set out to reduce the incidence of child abuse and neglect, reduce the number of child deaths, increase the proportion of economically self-sufficient families, increase the proportion of children with health insurance and access to health care, and increase the proportion of children enrolled in pre-school, Head Start, or certified child care. In addition, stakeholders anticipated that the Initiative would drive systemic change, ultimately leading to more supportive public policy toward children and families, a more seamless and responsive service delivery system, and a community more accepting of social responsibility for the well-being of young children.

The Making of the ECI

The Early Childhood Initiative was a massive undertaking that required considerable planning and organization and a unified vision among its collaborators. This section describes four key aspects of the Initiative: (a) the funding of the Initiative, (b) the organizational structure, (c) the programmatic components, and (d) the use of evaluation.

Funding of the Initiative:

A distinguishing feature of the ECI from its inception is its public/private funding approach. The developers of the Initiative believed that to achieve the goal of improving the system for serving young children and their families the approach needed to have a broad commitment from both the public and private sectors. The final budget for the first three-year phase of the ECI totaled nearly $40 million, with nearly 26% of these funds coming from private and philanthropic partners. See Table 1.1. For the three-year period, the budgeted funds were concentrated in the areas of effective parenting (54%) and quality child care (33%), with 0.6% allocated to the healthy children component and 12% for evaluation, operations and communications activities.

Table 1.1 Early Childhood Initiative Budgets for Phases I & II

	Phase I (Years 1-3) Revised: 07/01/99 – 06/30/02			**Phase II (Years 4-5) Proposed: 07/01/02 – 06/30/04**		
ECI Programs	**Total Budget**	**Public Funding**	**Private Funding**	**Total Budget**	**Public Funding**	**Private Funding**
Effective Parents						
Welcome Home	3,572,550	2,751,073	821,477	2,915,882	2,466,718	449,164
Early Start	14,279,212	14,279,212	0	13,622,966	13,622,966	0
TOTAL	17,851,762	17,030,285	821,477	16,538,848	16,089,684	449,164
Healthy Children						
Healthy Start Outreach	187,864	0	187,864	500,000	250,000	250,000
TOTAL	187,864	0	187,864	500,000	250,000	250,000
Quality Child Care						
Family Child Care Homes	7,748,192	5,098,192	2,650,000	5,394,436	4,995,961	398,475
Special Needs Child Care	3,052,702	1,644,735	1,407,967	2,484,370	858,856	1,625,514
TOTAL	10,800,894	6,742,927	4,057,967	7,878,806	5,854,817	2,023,989
Evaluation, Operations and Communications						
Evaluation	2,863,013	154,178	2,708,835	1,916,000	0	1,916,000
Operations/Communications	1,174,870	437,774	737,096	1,433,898	0	1,433,898
TOTAL	4,037,883	591,952	3,445,931	3,349,898	0	3,349,898
TOTAL	$32,878,403	$24,365,164	$8,513,239	$28,267552	$22,194,501	$6,073,051

Note: Phase II budget (proposed) was distributed December 6, 2002 to the ECI Partnership Committee.

When it was launched, the ECI had commitments from 23 private foundations and corporations that totaled nearly $10 million. Most of these private funds eventually supported expenses where governmental sources could not meet the need due to funding shortages or other restrictions (e.g., quality child care, evaluation). Governmental resources were secured from a variety of funding streams to meet the other requirements of the Initiative. State funding for the home visiting services came from the Ohio Department of Health and the Ohio Department of Job and Family Services, as part of the Help Me Grow program. Additional funds were committed to ECI by the Board of County Commissioners from the County's general reserve fund and the Family and Children First Council, as well as from TANF nonassistance funds money from the County's SAFE settlement over which the Commissioners had discretion. Finally, other funds were secured from the Mental Health Board for special needs child care services.

Organizational Structure of the ECI:

There are two primary structural dimensions to the Initiative. First, the leadership and decision making structure manages both the policy and vision-setting agenda for the ECI. Second, the operational structure manages the actual delivery of services. While these dimensions are closely intertwined in application, they are separated conceptually for the purpose of discussion. Figure 1.2 provides an abbreviated schematic of the Initiative's organizational structure.

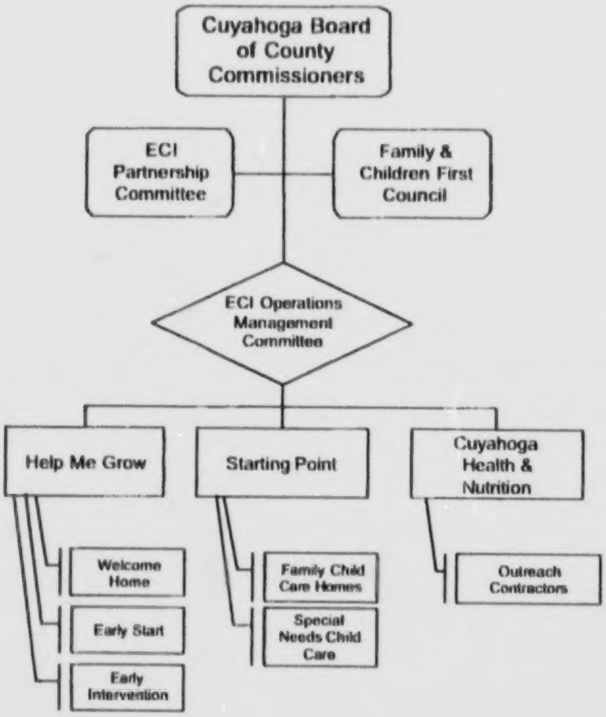
Cuyahoga Board of County Commissioners
ECI Partnership Committee
Family & Children First Council
ECI Operations Management Committee
Help Me Grow
Starting Point
Cuyahoga Health & Nutrition
Welcome Home
Early Start
Early Intervention
Family Child Care Homes
Special Needs Child Care
Outreach Contractors

Figure 1.2 ECI Organizational Structure

Prior to the implementation of ECI, a number of active community partners were brought together to form the leadership and operational network for the Initiative. The active partners brought to the table a variety of skills and assets including strategic decision-making capacity (e.g., authority to change policy rules, regulations and structure), financial capacity (e.g., expressing commitment to the goals of the Initiative through monetary and/in-kind contributions), and operational capacity (e.g., serving as a direct service provider or technical assistance).

Leadership/Decision Making Structure

The ECI is administered by the Cuyahoga Board of County Commissioners (BOCC). The Partnership Committee, comprised of representatives of all funders including Board representatives of the 23 private funders, the BOCC and representatives from the State, serves in an advisory capacity to the BOCC. The ECI Partnership Committee fulfills the following purposes: (a) to provide fiscal and programmatic oversight, (b) to assess effectiveness and impact of component strategies, (c) to determine future directions, and (d) to distribute information including evaluation findings to funding entities and other community organizations. Appendix 1.1 presents a listing of the Partnership representatives for the first phase of the ECI (1999-2002). All three County Commissioners are members of the Partnership and one

Commissioner serves as a co-chair of the committee along with a co-chair from a member organization chosen by the philanthropic members. This Committee meets on a quarterly basis to review updates on the Initiative, its program, and the evaluation, and to discuss current policy issues and future directions relevant to the ECI.

The County government provides day-to-day management of the Initiative through the ECI Operations Management Committee. During Phase I, the Deputy County Administrator for Health and Human Services served as the ECI Coordinator and chaired the Operations Management Committee. In addition, the Committee includes other Family and Children First Council staff, the three program directors in charge of the ECI components, as well as representatives of the private funders. This committee meets monthly (or on an as needed basis) to manage ongoing implementation of the Initiative and serves as the liaison group to the external evaluation team.

Operational Structure

The ECI is administratively housed under the County's Family and Children First Council. The services of the ECI are delivered through three coordinating organizations under contract to the County. These entities are: (1) The Help Me Grow Collaborative of Cuyahoga County, which coordinates the effective parenting services delivered under Welcome Home, Early Start, and Early Intervention; (2) Starting Point, which coordinates the quality child care services in the areas of family child care and special needs child care; and (3) Cuyahoga Health and Nutrition (a County agency), which coordinates the healthy child services through outreach and enrollment services of Healthy Start[2]. These organizations subcontract with a number of direct-service entities to deliver specific services. Help Me Grow contracts with 11 birthing hospitals to deliver Welcome Home and 28 agencies to deliver Early Start. Starting Point contracts with four agencies to deliver technical assistance to family child care providers, and five agencies to deliver special needs child care services (a sixth agency contracts directly with the County). Cuyahoga Health and Nutrition contracts for Medicaid outreach. The nonprofit service sector was identified as a key partner for ECI early on because of its operational expertise in services as well as technical assistance. Many of the nonprofit entities had long-term existing relationships to build upon in implementing ECI programs.

Programmatic Components of the Initiative:

From its inception, the ECI Partnership recognized that it could achieve its goals of effective parenting, health care for children, and high-quality, readily available child care only through the implementation of a wide range of coordinated strategies, supports and activities, and through the engagement of a spectrum of public and private stakeholders. Thus, the Early Childhood Initiative is notable for its comprehensive approach, the inclusiveness of its governance structure and its desire for a broad base of community support and involvement. The ECI also stands out from other similarly themed initiatives undertaken elsewhere in that it offers assistance that is preventive, universally available, "at scale," and community-based. ECI services are delivered in the informal settings in which children live or are cared for, yet its programs are driven by prior research-based findings. The Partnership examined a number of national models with the goal of learning from strategies that have proven successful in other places. The partners were particularly influenced by research that showed less favorable results for early childhood interventions built around a narrow focus.

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[2] Note: CHN merged with Cuyahoga Work and Training to form Cuyahoga County Employment & Family Services, in 2002. Throughout this report, the agency is referred to as CHN.

Drawing on the results of these investigations, the ECI encompasses six interrelated efforts—some of which are new to Cuyahoga County, some of which represent expansions or modifications of existing programs. These programmatic components are: (a) Welcome Home—a one-time home visit by a nurse for all first-time and teen mothers and their newborns; (b) Early Start—intensive home visits for families with children up to age 3 who have been identified as facing greater challenges; (c) expansion and quality improvement of certified home-based child care; (d) training and support for child care providers to serve children with special needs; (e) expansion of government-subsidized health insurance coverage for children of low-income families through enrollment in Healthy Start and other Medicaid programs; and (f) an effort to increase public awareness of the importance of a child's first few years of life. Upon the creation of such a comprehensive, community-based, and integrated system of services, the ECI Partnership reasoned, all children should benefit and at-risk children should not slip through the cracks.

Effective Parenting

A mission of the ECI is to support effective parenting through home visiting interventions. Welcome Home is a universal program providing a home visit to all first time and teen parents. Early Start provides more extended home visiting for families with children birth to three that meet specific criteria that could put children at risk for developmental delay. Early Intervention is provided for children with special needs.

Welcome Home: Welcome Home (WH) is part of a national movement linked to research on brain development and outcome studies that support the importance and cost effectiveness of intervening as early as possible in a child's life. The Healthy Families America (HFA) initiative, developed in 1992 by the National Committee to Prevent Child Abuse, promoted universal and intensive home visiting programs to prevent child maltreatment. The Welcome Home visit, conducted by a Registered Nurse (RN), occurs shortly after leaving the hospital and includes the following services: reviewing the baby's and mother's health, sharing parenting and resource information, and linking the family to helpful community resources.

In 1998 the Ohio Department of Health made state seed money available through all the county Family and Children First Councils (FCFCs) for a home visit to all first-time and teen mothers. In Cuyahoga County, a major impetus for this program was as an extension of the ChildFind efforts to identify children in need of intervention during infancy. Further, in Cuyahoga County one guiding principle for the program was that home visits be conducted by the hospital of the family's choice. The FCFC developed a plan for this home visiting in Cuyahoga County to be coordinated through the community health services involved in labor and delivery. Each hospital would have a Welcome Home specialist on staff and would decide how to provide the home visiting services. Initially 15 hospitals were involved, although two hospitals, Deaconess and St. Luke's, closed early in the pilot phase. It was tested in 13 hospitals from January to June, 1999 and fully implemented in July 1999, in all of these hospitals, except Mt. Sinai, which also closed.

As the ECI and Welcome Home got underway, it became evident that this component could be expanded. Eligibility criteria for Welcome Home visits were broadened to include legal custodians that were not birth parents and birth mothers who may have had previous pregnancies but never brought the infant home from the hospital, as well as to first-time mothers and teen mothers.

Early Start: Early childhood home visiting programs initially targeted only those children with diagnosed disabilities as supported by federal legislation. However, in 1991, Part H of the Individuals with Disabilities Education Act (IDEA) was reauthorized, and it was left up to the states to determine the populations that they would target for services. Some states had expanded home visiting services to families with risk factors such as low incomes and teen parents that were documented by research to correlate with a higher incidence of learning, emotional, and behavioral problems for the children later in their life.

Early Start (ES) is ongoing in-home parent education and support, developmental screenings, and aid in locating resources for at-risk families with a child under three years of age. It began as a voluntary program in 1996 and the Cuyahoga County Early Intervention Collaborative (CCEIC)[3] contracted with community-based providers to deliver ES. All referrals came through Interlink (the County's resource and referral site) at the CCEIC and were then sent out to a provider based on the geographic location and need of the family. Passage of federal welfare reform legislation in 1996, followed in 1997 by OWF led to ES expansion in 1998. ES became one of the support programs for Ohio Works First. All OWF families with children under one year of age were contacted by ES, and all families with children 0-3 years of age were offered ES home visiting. All ES participants were able to draw upon County Prevention, Retention Contingency Funds (PRC) for services that support preparation for steady employment. Increased marketing of services and Early Start expansion were initiated in 1998 during the planning year for the ECI. This resulted in contracts with 27 different agencies in Cuyahoga County. Some of these agencies integrated Early Start into existing programs that served low-income children and their families. In addition, the need to engage families during the prenatal phase also was seen as vital early on in the program. During 2000, plans were developed for expanding visits to families before the baby's birth. The piloting of a curriculum for this purpose began at University Hospitals in 2001.

Early Intervention Services: Early Intervention (EI) includes services for infants and toddlers that are designed to identify and help a child with a delay as early as possible. Federal law identifies a wide range of services for Early Intervention including, but not limited to, hearing and vision services; family training and counseling; nutrition services; occupational, physical, and speech therapy; and, social work services and service coordination. The Ohio Department of Health in implementing the federal IDEA legislation required that families with children under the age of three who are eligible for Early Intervention Services be entitled to developmental evaluation, service coordination, and an Individualized Family Service Plan (IFSP).

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[3] The CCEIC was renamed the Help Me Grow Collaborative of Cuyahoga County in 2001. Concurrently, Interlink became Interlink-Help Me Grow.

Healthy Children

The ECI's emphasis on the health of young children focuses on ensuring public health insurance coverage for all eligible low-income families with children under age 6.

Healthy Start/Medicaid: In the 1990s much attention was paid to the large number of low-income children in the United States who were not receiving adequate medical care. The Balanced Budget Act of 1997 (Title XXI) expanded public health insurance by creating the State Children's Health Insurance Program (SCHIP), a means-tested program to provide medical care for pregnant women and children under the age of 19 in families with incomes at or below 150% of federal poverty level (FPL). States were to submit individual plans to be eligible for these funds. Ohio submitted its plan for Healthy Start in December 1997 and the state program began in July 1999. Initially, applications for coverage were lower than expected and observers were concerned that some families needing coverage were unable to access it.

Effective July 1, 2000, Healthy Start program criteria were expanded to remedy difficulties in securing sufficient documentation to apply for the program and to meet the needs of low income families who had not qualified according to previous eligibility requirements. Under the new rules, uninsured pregnant women and children in families with incomes up to 200% of FPL were eligible for coverage. Documentation requirements included proof of income and, when applicable, proof of pregnancy, alien status, and/or other health insurance. From December 2000 through mid-2002, a pilot project took place in Cuyahoga County to streamline the procedure further by families qualifying through self-declaration of income without needing to provide income verification. The reapplication process is as follows: every 12 months for children on Healthy Start, every 6 months for parents and children on Healthy Families, and coverage up to 60 days after the birth of their baby for pregnant women.

The ECI has worked to bolster Healthy Start through its Healthy Children emphasis. It seeks to ensure health insurance, a medical home (i.e., a consistent primary health care provider), age-appropriate immunizations, and adequate and appropriate medical care for all Cuyahoga County families with young children. The ECI also works with the Northeast Ohio Pediatric Society to support the ChildFind initiative by assisting pediatricians in the early identification and support of children with disabilities.

Quality Child Care

There are two components of the ECI that support the mission of ensuring the availability of quality child care in Cuyahoga County. The Family Child Care Homes (FCCH) component seeks to expand child care options for low-income families by increasing the availability of home-based child care and providing training and technical assistance to providers to increase the quality of care in those homes. Special Needs Child Care focuses on meeting the needs of children who have specific physical, emotional, or behavioral problems that require special support in a child care setting.

Family Child Care Homes: The passage of Ohio's Work First program in 1997 increased the demand for child care slots, as more single mothers entered the labor force. In addition, the federal welfare reform legislation, passed in 1996, had changed the structure of federal child care assistance by combining funding for the existing subsidy programs into the Child Care and

Development Fund (CCDF). States were required to contribute funding to draw down a proportion of their federal allotment. State expenditures for child care increased by 55% between 1996 and 1998. This increased demand coupled with the knowledge that many parents prefer child care located within their own neighborhood prompted the ECI to focus on creating more family child care slots. The ECI set as one of its goals to certify 1,025 new family child care homes through the Initiative and thereby increase the number of child care slots.

Starting Point, the County's child care resource and referral source, was selected as the lead agency for the ECI's child care components and was tasked with developing a regional child care system to meet this goal. Starting Point contracted with four regional agencies to provide the training and technical assistance necessary for family care providers to become certified and improve child care quality. The FCCH quality enhancement program, Care For Kids, promotes quality improvement through in-home technical assistance and consultation to family care providers, as well as through training sessions and workshops.

Special Needs Child Care: When demands for child care for all children increased with the passage of the welfare reform (PRWORA and OWF), early studies indicated that child care for children with special needs was particularly crucial for enabling mothers to find and sustain employment. Therefore, during the planning year for the ECI, a telephone needs assessment survey was initiated through Interlink to determine the extent of the need in Cuyahoga County. It established that 4,000 requests for special needs child care were received from July 1998 to February 1999. The ECI fostered coordination between Interlink/CCEIC and Starting Point to address this need. The ECI adopted a broader definition of special needs child care for Cuyahoga County than in most other jurisdictions with the goal of supporting stable child care for all children under 6 years of age with specific diagnoses of a disability. The definition also included children who, though undiagnosed, require special supports in order to remain in child care. A goal was set to serve 500 children yearly from 1999 to 2002, including children with conditions causing them to be medically fragile.

Evaluation of the Initiative:

Another distinctive characteristic of the Early Childhood Initiative is that it provided for a rigorous external evaluation by a national team of researchers. From the beginning, the ECI Partnership planned to measure the impact of the Initiative in a variety of ways. The partners wanted to understand the extent to which services were being implemented as planned, were reaching children and families in need, and were having the desired impact on children, families and the community at large. Not only would the knowledge gained from ongoing evaluation inform the continuation of the Initiative and allow for mid-course adjustments, such research would ensure thorough documentation of what ECI set out to do and what it accomplished.

It was important to the ECI Partnership that the evaluation of the Initiative build local capacity for conducting early childhood research. With all ECI program components in operation beginning with infants born in 2000, the Partnership selected Cleveland's Center on Urban Poverty and Social Change at the Mandel School of Applied Social Sciences of Case Western Reserve University to direct the evaluation. In addition, the Partnership brought in national experts from the Chapin Hall Center for Children at the University of Chicago and the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel

Hill. The contractual period for the evaluation of the first 3 years of the ECI was designated as October 2000 to September 2002.

The research and evaluation of the Early Childhood Initiative was designed to capture the impact of the Initiative as a whole, as well as that of each of the programs. Evaluation research on large-scale community initiatives, such as ECI, is rare, especially when an initiative has been taken to scale in such a short time. The evaluation includes work on all of the major programs of the Initiative to examine the degree to which they reach eligible families, children and providers, to assess whether and how the target populations are benefiting as a result, and to determine the extent to which children and families are served by more than one ECI program. The evaluation also included exploring how the ECI affected the local context and systems for young children and their families. Specifically, the research and evaluation sought to document the role that the ECI played in changing the service delivery system, public policy, and community supports for young children and their families.

A principal investigator with expertise in the area under study leads each of six sub-studies: a population trends study; a systems change study; studies of the two home visitation programs, Welcome Home and Early Start; a family child care homes study; a special needs child care study; and a study of the health care insurance coverage expansion through Healthy Start and other Medicaid efforts. Each study addresses specific questions related to the program under evaluation. Even though the program components are being considered individually, all the evaluations share an overarching concern: *Is the program, strategy, or activity successful in helping to improve the lives of the children in Cuyahoga County?*

Because the ECI is complex, the evaluation effort brings together a multidisciplinary team of researchers from several institutions, with coordination provided by the Center on Urban Poverty and Social Change. Chapin Hall Center for Children has primary responsibility for the research and evaluation of the home visitation programs. The Center on Urban Poverty and Social Change is conducting studies of the family child care homes and the expansion of child care for children with special needs in consultation with researchers from Frank Porter Graham Center at the University of North Carolina. The Center on Urban Poverty and Social Change is conducting the Healthy Start/Medicaid study (with assistance from the School of Medicine), the systems change study, and tracking indicators of well-being of the ECI target populations (children from birth to 5 years of age and their families) to determine whether the Initiative is having a discernible effect on these markers.

Multiple data sources and methods are being combined to provide a holistic view of how each component of the ECI is working and how all of the parts connect. Among the research tools that are being used are longitudinal studies of families in their homes; telephone surveys of parents and service providers; qualitative interviews with key informants; observation of service quality; linkage and analysis of computerized administrative records; case record reviews; and the calculation of population-based, County-level social indicators. The magnitude of the research and evaluation required the research team to develop efficient systems of coordination and integration, as well close working relationships with representatives of the various stakeholder groups in the ECI Partnership. Each research component team customized its evaluation approach based on data availability and programmatic and measurement characteristics specific to each line of inquiry. Thus, sample definitions and follow-up periods vary across and within chapters in order to maximize the amount of data available for analysis. (See Appendix 1.2 for an overview of the child samples used in this report.)

Operationally, the evaluation team works closely with the ECI Operations Management Committee in an ongoing way. A representative of the evaluation team attends the monthly Operations meetings and has regular interaction with the ECI evaluation coordinator. The Operation Committee provides direct feedback on all evaluation draft reports, presentations, and evaluation design changes. Further, research team members assigned to each evaluation component have regular contact with the program directors and their staff. These interactions relate to data collection and interpretation issues, program improvement activities, and new developments.

Status of the ECI at the End of Phase I

At this point, approximately half-way into the fourth year of the Initiative, the near-term future of the ECI is assured. The Cuyahoga Board of County Commissioners and the ECI Partnership Committee members have committed their leadership and financial support for years four and five of the Initiative. As of December 2002, 14 private funders had committed a total of $5.2 million, and 3 foundations were planning to consider funding decisions at an upcoming board meeting. As in Phase I, the Phase II budget includes a variety of governmental funding streams involving County, State and Federal monies. The proposed budget for Phase II of the Initiative ($28.3 million) includes over $22 million in public funding, of which $8 million comes from the County reserve, as committed by the County Commissioners. (Refer to Table 1.1 on page 1-6 for the proposed Phase II budget.)

Beyond financial commitments, the ECI Partnership Committee strives to raise the profile of the ECI within the community. Through a reexamination and streamlining of marketing activities and approaches within the ECI, the Partnership seeks to raise awareness of the ECI among families that could benefit from its services and to raise awareness among the general public about the important mission of the Initiative. These efforts, along with a continuing commitment to program improvement and accountability, greatly increase the likely success of the Initiative and its overall impact within Cuyahoga County.

The Contents of this Report

The final report on the first three-year phase of the ECI includes chapters addressing the various aspects of the overall study. Chapter 2 presents the findings on the County-level indicators of child well-being, and Chapter 3 discusses the scope and reach of the ECI programs within the child population in the County. The home visiting components of the Initiative (Welcome Home and Early Start) are examined in Chapter 4. The quality child care efforts of the ECI are discussed in Chapter 5 (Family Child Care Homes) and Chapter 6 (Special Needs Child Care). Chapter 7 presents data from the study of Healthy Start/Medicaid. The final chapter (Chapter 8) discusses the findings related to the system for serving young children and their families in Cuyahoga County.

Appendix 1.1: ECI Partnership Committee

Board of County Commissioners
- Jane L. Campbell (1999-2001)
- Jimmy Dimora
- Peter Lawson Jones (2002)
- Tim McCormack

State of Ohio
- Robert Taft, Governor

Foundations
- The Abington Foundation
- The Eva L. and Joseph M. Bruening Foundation
- The Cleveland Clearing House Association
- The Cleveland Foundation
- The George W. Codrington Foundation
- Florence Crittenton Services Fund
- Deaconess Community Foundation
- Eaton Corporation
- Hershey Foundation
- Initiatives in Urban Education Foundation
- Mount Sinai Health Care Foundation
- The Reinberger Foundation
- Saint Ann Foundation
- Saint Luke's Foundation
- The Sherwick Foundation
- The Billie Howland Steffee Family Fund
- The Treu-Mart Fund
- The TRW Foundation
- United Way Services
- Verizon Foundation
- The Raymond John Wean Foundation
- The Thomas H. White Foundation
- The Woodruff Foundation

Appendix 1.2 Overview of Child Samples and Follow-up Periods Used in Report

Chapter	Sample Period	Follow-up Period	Measures
Ch 2 Childhood Indicators	Born 01/90-12/00	Point of birth	Birth outcomes Receipt of prenatal care
	Under age 6 01/92-12/01	Point of welfare receipt	Receipt of cash welfare
	Under age 6 01/92-12/00	Until 12/31/01 Point of death	Maltreatment Death rate
	Born 01/97-12/00	Until 06/30/02	Early Intervention receipt
Ch 3 Scope & Reach	Born 07/93-12/01	Until 12/31/01	ECI participation
	Under age 6 07/99-12/01	Until 12/31/01	ECI participation
	Born 07/99-12/00	12 months post birth	ECI participation
	Under age 6 served by ECI 07/99-06/01	6 months post ECI initial service	Use of non-ECI services
Ch 4 Home Visiting	Children served by Welcome Home 02/01-12/01 and consented for study	3 & 11 months post baseline	Satisfaction with service Service receipt
	Children served by Early Start 02/01-12/01 and affirmative parental consent on file	3 & 11 months post baseline	Enrollment in services Nature of helping relationship Service receipt, parenting knowledge, skills, and characteristics
	Children referred to Early Start 07/99-03/02	Until 06/30/02	Receipt of Early Start services
	Children referred to Early Start 07/99-03/02 and received at least one home visit	40 weeks post referral to Early Start	Program retention
	Children served by Early Start 02/01-12/01 and affirmative parental consent on file and reported for child maltreatment (vs not reported)	Until 12/31/01	Service receipt, parenting knowledge, skills, and characteristics
Ch 5 Family Child Care	N/A - provider sample and population only - family child care providers certified 07/99-06/02	N/A	N/A

(continues)

Appendix 1.2 Overview of Child Samples and Follow-up Periods Used in Report (continued)

Chapter	Sample Period	Follow-up Period	Measures
Ch 6 Special Needs Child Care	Served through technical assistance to child care provider or placement assistance 01/00-06/02 and appears in administrative dataset and affirmative parental consent on file	Until 06/30/02	Receipt of S.N. services
	N/A - parent sample and supervisor sample	N/A	N/A
Ch 7 Healthy Start	Born 01/98-06/01 and enrolled in Medicaid within 2 months of birth and without special healthcare needs	11 or 13 months post birth	Length of Medicaid enrollment Receipt of well-baby visits
	Born 01/98-06/01 and enrolled in Medicaid within 12 months of birth and without special healthcare needs	12 months post birth	Age at enrollment
	Under age 6 01/98-06/01 and enrolled in Medicaid at time of service receipt and without special healthcare needs	Until 06/30/01	Emergency department usage for non-injury conditions
Ch 8 Systems Change	N/A -Key informant sample only	N/A	N/A

Chapter 2
Early Childhood Social and Health Indicators in Cuyahoga County

Claudia Coulton, Engel Polousky, Julia Withers, and Maruza Andrade

Chapter Summary

The Early Childhood Initiative (ECI), in its broadest conceptualization, is concerned with the development of all children in Cuyahoga County, from birth through their fifth year of life. In the first 3 years, ECI sought to bring its programs, services and other activities to a scale at which all children could benefit. This chapter provides a statistical profile of the early childhood population and presents trends on selected indicators of child health and well-being. The early trends are encouraging. In the last several years, families of young children experienced increased employment and reduced poverty rates. They are availing themselves of the vastly increased supply of regulated child care and child care subsidies that enable low-income families to be employed. The number of uninsured children in the County fell to an all time low due to Medicaid and Healthy Start outreach and expansion. Moreover, Cuyahoga County's pre-school enrollment rates, while not universal, exceed national norms. As yet, there is no progress in reducing the overall rates of child maltreatment reports, but the trends for the most recent birth cohorts are showing encouraging signs in terms of secondary prevention. On the less positive side, the persistence of high rates of low birth weight births, despite the leveling of teen and non-marital births, supports the decision of the ECI to pilot a prenatal program. Moreover, data are not yet available to determine whether the recent recession has increased family poverty. Specific trends highlighted include:

- Population and births: The population of children under age 6 now stands at 108,986. Birth rates in general, as well as births to teen and first-time mothers, fell in the latter half of the decade. Low birth weight births remain above the national averages at 9.0%.
- Family self-sufficiency: Poverty rates for families with young children fell by more than one percentage point between 1989 and 1999, and these declines were particularly impressive among female-headed families with children. The percentage of children under age 6 who were on cash welfare in Cuyahoga County also fell from nearly 40% in 1992 to 11% in 2001.
- Child maltreatment: Child abuse and neglect rates for children under age 6 held steady throughout the 1990s, but children born in 2000 were at a slightly increased risk of having a child maltreatment report before age one compared to previous birth cohorts. However, recent birth cohorts showed a slightly lower chance of experiencing a second incident of maltreatment within 1 year, suggestive of secondary prevention.
- Health insurance: A large improvement occurred in health insurance coverage for young children between 1998 and 2001, with the estimated percentage of uninsured children under age 6 falling markedly from 10.6% to 2.4%.
- Child deaths: Deaths among children under age 6 fell steadily throughout the decade.
- Child care and pre-school enrollment: Enrollment of children under age 3 in regulated child care increased by about 25% since the inception of ECI. In 2001, 76% of 3- and 4-year olds were enrolled in pre-school, including Head Start, which compares favorably to a national pre-school enrollment rate of 57%.
- Early identification of special needs: More children born in 2000 were identified as needing Early Intervention services and were identified at younger ages than previous birth cohorts.

Introduction

The Early Childhood Initiative (ECI) is concerned with the health and development of all children in their first years of life—birth until they reach their sixth birthday—in Cuyahoga County. This is a crucial period in human development, but because children have not yet entered school, public policy and programs have heretofore not systematically and universally addressed this stage. The ECI is promoting a sustained civic interest in this life stage and the establishment of services, supports, and opportunities that families need in their early years of childrearing. The ECI's investments in policy development, system improvements and new programs are expected to reduce the inequities in child development within the County and assure that all children begin their lives on a solid foundation on which to build their future success. Achieving such ambitious aims for the entire population, though, requires an unprecedented scale and a sustained focus on markers of progress across the board.

This chapter provides a statistical portrait of the early childhood population in Cuyahoga County. The Initiative's leaders have called for ongoing tracking of social and health indicators to inform them and the community at large about the status of the young child population, both before ECI's inception and as it has moved to scale. This chapter builds on the preliminary analyses on childhood indicators presented in Interim Report on the Initiative (Coulton, Polousky, & Kim, 2001). Social and health indicators are population-based statistics that are gathered over a long period so that a trend can be observed. It is anticipated that selected indicators of early childhood well-being will begin to move in a more positive direction as a result of the many programs, services, and policy changes enabled by the ECI. Some additional indicators are being tracked because they provide information on the size and characteristics of the early childhood population that are pertinent to understanding the scope and context for the ECI.

Included in this chapter are data on early childhood indicators addressing the following broad domains:

- Early childhood population
- Birth information
- Economic status of families
- Child abuse and neglect reports
- Health insurance coverage
- Child deaths
- Participation in child care and pre-school
- Early identification of children with disabilities

Social and health indicators have both strengths and limitations as tools for research and evaluation. Their major strength is that they are available historically, because they have been gathered either by administrative agencies or as part of larger surveys that are repeated. As such, indicators can be used to compare the status of a population before an initiative began with subsequent trends. Moreover, indicators lend themselves to statistical estimates that can be applied to an entire population, such as children under 6 in Cuyahoga County, the target group of the ECI. The limitations of statistical indicators for evaluating the effects of a single initiative are also significant. Demographic and economic forces beyond the control of the initiative often have strong effects on trends, making it difficult to isolate the impact of specific policies or programs on the indicators. Further, some program objectives may not be well measured by indicators, because the relevant outcomes have not been collected by administrative agencies, or the time trend may not be long enough. Thus, although indicators can reveal important information about the social and health status of the early childhood population and the degree to which some of the goals of the Early Childhood Initiative have been achieved, caution should be exercised in the interpretation of the trends. It should also be noted that the availability of data to calculate indicators often lags due to the processes in administrative agencies. For this report, many of the indicators are only available through early phases of ECI implementation, thus constituting a baseline against which future progress can be measured.

This study of population indicators uses two methods of looking at trends: analysis of *birth cohorts* and *point in time estimates*. Figure 2.1 illustrates these two perspectives. A birth cohort consists of all children born in a particular time period.[1] One of the major features of the ECI is that it is universal and begins at birth, so it is children born after July 1, 1999 who are first fully exposed to the universal newborn home visit of the Welcome Home Program and to all of the other components of ECI. Birth cohorts from 2000 forward are labeled "full ECI" to indicate that all children born in that year could have benefited from all ECI programs. Infants born after July 1, 1999 were also eligible for the Welcome Home visit, but the 1999 birth cohort was labeled as partial ECI since babies born in the first half of the year were not eligible for all ECI programs. Earlier birth cohorts could benefit at a later age from components of the ECI that were not restricted to newborns, such as health care and expanded child care, as well as do to the system and policy changes that occurred. Data organized by birth cohorts can be used to determine whether outcomes improved for infants born after the ECI was implemented.

The second method of examining trends is to organize the indicators by calendar year. In other words, statistical estimates are made for the child population under age 6 at a point in time. As shown in Figure 2.1, all members of the early childhood population (i.e., under age 6) will not have been fully exposed to all ECI programs until the year 2005. As Figure 2.1 also illustrates, making statistical estimates for children by age and calendar year incorporates both the birth cohort and point-in-time perspectives.

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[1] Birth cohorts include a small proportion of children who were born outside the County and later migrated in, and this proportion rises as the cohort ages. Moreover, a small portion of children who are born in the County migrate out before age 6. Thus, not all members of the birth cohort have the same exposure to the intervention. Unfortunately, the administrative records used in this study do not allow for the determination of migration status.

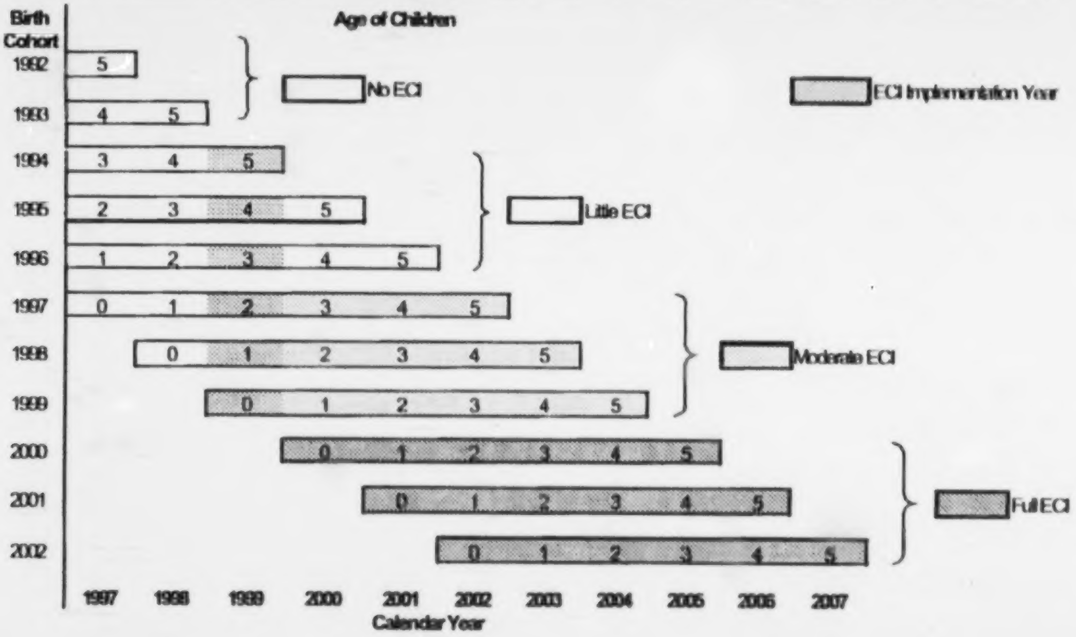

Figure 2.1 Birth Cohorts Approach

Population Trends

The ECI focuses on all Cuyahoga County children in their earliest years from birth to the age at which most of them have entered kindergarten. This phase of life is vitally important in forming the basis for future development. Table 2.1 presents population estimates for this age group defined as children under age 6. The population of children in each age category has declined somewhat over the decade, estimated to be 108,986 in the year 2001. The slight decline (9.0%) since 1990 coincided with the overall population decline in the County. As a percentage of the total population, the population of very young children has also fallen, now representing approximately 7.9% of the entire County population.

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Table 2.1 Population Estimates of Children Under Age 6, Cuyahoga County, 1990-2001

Year	<1	1	2	3	4	5	Total Under 6	% Population Under 6
1990[a]	21,647	20,525	19,857	19,365	19,319	19,094	119,807	8.5%
1991	21,262	20,263	19,693	19,249	19,274	19,091	118,832	8.4%
1992	20,877	20,001	19,529	19,132	19,230	19,087	117,856	8.4%
1993	20,493	19,740	19,365	19,016	19,185	19,084	116,883	8.3%
1994	20,108	19,478	19,201	18,900	19,140	19,080	115,907	8.3%
1995	19,723	19,216	19,037	18,784	19,096	19,077	114,933	8.2%
1996	19,338	18,954	18,872	18,667	19,051	19,074	113,956	8.1%
1997	18,953	18,692	18,708	18,551	19,006	19,070	112,980	8.1%
1998	18,569	18,431	18,544	18,435	18,961	19,067	112,007	8.0%
1999	18,184	18,169	18,380	18,318	18,917	19,063	111,031	8.0%
2000[b]	17,799	17,907	18,216	18,202	18,872	19,060	110,056	7.9%
2001[c]	17,626	17,733	18,039	18,025	18,688	18,875	108,986	7.9%

Note: Using linear extrapolation, an adjustment factor was calculated for and applied to each inter-census age group population to calculate adjusted inter-census populations. Prepared by: Center on Urban Poverty and Social Change, Mandel School of Applied Social Sciences, Case Western Reserve University.

[a] Population Estimates Program, Population Division, U.S. Census Bureau.

[b] Census 2000 Summary File (SF1) 100-Percent data, U.S. Census Bureau.

[c] Calculated using 2001 estimated total population, U.S. Census Bureau and age specific proportions from 2000 estimates.

Birth Trends and Characteristics

Although the ECI comprises multiple programs and policies, one of its most important innovations is that it begins at birth, or even prenatally, with policy provisions, information, and supports for new and young families. Therefore, the size of the annual birth cohorts and their characteristics are significant factors in shaping the ECI. Cuyahoga County birth trends appear in Table 2.2. There has been a gradual decline in the total number of births and a commensurate decrease in births to first-time and teen mothers who are eligible for the newborn Welcome Home visit.

The teen birth rate has fallen steadily over the past several years, consistent with national trends. The percentage of mothers with less than a high school education has fallen only slightly. Although not explicitly a target of the first phase of ECI, the table also presents information on the rate of births where the weight of the infant is less than 2500 grams. These infants are considered to be low birth weight and experience increased risk for health and developmental problems. The fact that the low birth weight rate in Cuyahoga County (9.0%) remains above the national average (7.6%) and has not shown an appreciable decline in recent years is further testament to the need for the kinds of programs and services offered through the ECI. It should be noted, though, that Cuyahoga County's low birth weight rate compares favorably with the five largest metropolitan counties in Ohio. The average low birth weight rate for these largest counties was 8.6%. Prenatal care is an essential part of a healthy start for children, and this is also tracked in Table 2.2. The trends show a slight improvement in the early 1990s and remain steady in the later part of the decade, but about 30% of births still lack adequate prenatal care according to an index that takes into account when care starts and the total number of prenatal care visits.

Table 2.2 Trends in Births and Birth Characteristics, Cuyahoga County, 1990-2000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Infant Births	22,568	22,918	22,095	21,492	20,277	19,888	19,505	19,033	19,002	18,402	18,904
Welcome Home[a] Eligible Births[b]	9,814	9,748	9,190	8,979	8,494	8,525	8,262	8,091	8,144	7,786	7,842
Teen Birth Rate,[c] 10-14	1.86	1.64	1.96	2.27	2.44	1.65	1.59	1.62	1.33	1.48	1.30
Teen Birth Rate,[c] 15-19	67.17	67.42	64.48	62.96	57.55	57.24	56.07	53.90	56.83	51.81	51.16
% of Mothers with No High School Degree	20.4%	21.8%	21.0%	21.0%	19.6%	18.8%	18.5%	18.6%	19.0%	18.5%	18.6%
% Low Birth Weight	9.0%	9.8%	9.7%	9.4%	9.2%	9.5%	9.2%	9.0%	9.1%	9.1%	9.0%
% with Adequate Prenatal Care	65.3%	63.6%	64.0%	65.0%	64.7%	67.5%	68.9%	67.6%	68.0%	70.2%	69.8%
% with Prenatal Care in First Trimester	79.1%	79.2%	78.4%	80.0%	79.6%	80.0%	81.4%	81.7%	81.5%	82.9%	82.5%
% with No Prenatal Care	3.4%	4.2%	4.3%	3.5%	2.3%	1.7%	1.3%	3.2%	4.3%	3.3%	1.6%

Source: Center on Urban Poverty and Social Change, Case Western Reserve University: generated using Cleveland Area Network on Data and Organizing (CAN DO) http://povertycenter.cwru.edu.cando.htm, Birth Statistics, 1990-2000.

Note: In 1997 and 1998, there was excessive missing data on prenatal visits from a few Cleveland hospitals. Errors may be responsible for the high rate of no prenatal care in these years. See *The Right Start* online at www.aecf.org.

[a] First time and teen mothers are eligible for the newborn Welcome Home visit.

[b] Counts prior to 1999 reflect births that would have been WH-eligible had the program been in existence.

[c] Teen Birth Rate = Total Teen Births / Population of Females ages 10 – 14 (and 15-19)* 1000.

Economic Status of Families

Poverty is one of the strongest predictors of child well-being, and the devastating effects of poverty on development have been shown to be most severe among young children. Recognizing this fact, the ECI sought to promote family economic self-sufficiency as one of its central objectives. Self-sufficiency refers to families' abilities to achieve a decent standard of living. Most definitions suggest that earned income, rather than government benefits, should go into a measure of economic self-sufficiency. Poverty status, as measured by the U.S. Census, is commonly recognized as an indicator of self-sufficiency. The poverty threshold in 2002 for a family of three is currently set at an annual income of approximately $15,020.[2]

Table 2.3 Poverty Rates of Families with Young Children in Cuyahoga County and U.S.

	1989	1999
Cuyahoga County Families with Children < age 5	22.3%	21.1%
Cuyahoga County Female-Headed Families with Children < age 5	61.4%	49.8%
U.S. Families with Children < age 5	18.3%	17.0%
U.S. Female-Headed Families with Children < age 5	57.4%	46.4%

Source. U.S. Bureau of the Census, SF3, 1990 and 2000.

Poverty rates for families with young children are presented in Table 2.3. The poverty rate for all families with related children less than 5 years of age in Cuyahoga County declined by more than one percentage point between 1989 and 1999. More impressive is the more than 11 percentage point decrease in poverty in the highest risk group, female-headed families with children. When compared with the trends in the entire U. S., Cuyahoga County's poverty rates for female-headed families fell by a greater amount. However, since it started with a higher poverty rate in 1989, the 1999 poverty rates in Cuyahoga County remain slightly above the national average. It should be noted that the decennial census data were collected at the peak of the economic expansion and very recent estimates for the nation suggest that poverty rates went up somewhat since the onset of the recession. Updated poverty figures specific to Cuyahoga County are not available at this time.

Another indicator of self-sufficiency is children's reliance on cash welfare payments. A recent study by the Center on Urban Poverty and Social Change documented that the majority of families that left welfare in Cuyahoga County had incomes that were somewhat higher than their welfare incomes had been (Coulton, Pasqualone, et al., 2001).[3] The typical family on welfare lives on income that is only 66% of the poverty line, while the average family that leaves welfare lives at or just above the poverty threshold.

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[2] There is considerable debate about how the poverty threshold is set, and there is general agreement that it reflects a minimum, subsistence standard of living (National Research Council, 1995).

[3] This study also found that about 20% of families were worse off economically after leaving welfare. Studies of welfare leavers around the country are drawing similar conclusions.

Table 2.4 Children Under Age 6 Receiving Cash Welfare, Cuyahoga County, 1992-2001

Year	Yearly Average	% of Children Under 6
1992	46,344	39.3%
1993	45,748	39.1%
1994	44,014	38.0%
1995	40,178	35.0%
1996	36,530	32.1%
1997	32,053	28.4%
1998	26,182	23.4%
1999	20,803	18.7%
2000	16,330	14.8%
2001	12,258	11.2%

Source: CRIS-E Case/Individual Extract Files, Cuyahoga Health and Nutrition.

Note: From August 1997 to present, actual data from the Case/Individual Extract Files was used. Since such data was not available prior to August 1997, values were based on the analysis of the data relationship between counts produced by the Income Maintenance Files (IMF) data and counts produced by the Case/Individual Extract Files.

Table 2.4 shows that the number and percentage of young children in Cuyahoga County on cash welfare has been declining steadily since 1994. It also shows an accelerated decline since welfare reform was implemented in 1997. In fact, nearly 10,000 children under 6 left cash welfare between 1999 and 2001.

The falling poverty rate and decline in welfare caseload suggests that economic self-sufficiency of families with young children in Cuyahoga County has been improving in recent years. This does not mean, however, that many former welfare-reliant or other low-income families do not need continued assistance to provide economic stability for their young children. Indeed, the recession may bring spells of unemployment for many families. Moreover, families that have moved from welfare to work have the added burden of managing work and child care, attesting to the importance of the ECI's emphasis on helping parents obtain employment services and quality child care. Without such supports, the benefits of welfare reform for young children will not be realized.

Child Maltreatment

Child maltreatment represents one of the most extreme risks for young children, and its reduction is a high priority for the ECI. The ECI has the potential to prevent maltreatment through increasing parents' effectiveness and connecting them to the resources they need to provide adequately for their children and promote their development. Prevention may take two forms: a) preventing children from being maltreated at all (i.e., primary prevention), and b) identifying incidents of maltreatment early and preventing additional occurrences (i.e., secondary prevention). Evidence that primary prevention is occurring requires a reduction in the proportion of young children who have experienced maltreatment. Evidence of secondary prevention can be seen in lessened severity or in the reduction of subsequent occurrences of maltreatment.

Measuring the level of child abuse and neglect in the young child population is fraught with difficulties. An important limitation is reliance upon child abuse and neglect reports that are received and investigated by the authorities. There are many factors along the way that affect whether an act that might cause abuse or neglect is actually observed, reported, and determined to constitute maltreatment. Increased surveillance, more thorough investigations, or rising community expectations for parenting are factors that could explain increased rates of child abuse and neglect reports over time. Thus, it may be difficult to distinguish increased recognition from a true increase in the amount or severity of maltreatment itself.

Child maltreatment indicators presented in this report are based on computerized records of child abuse and neglect reports to the Cuyahoga County Department of Children and Family Services. These reports come into the agency alleging child abuse or neglect. After investigation, each reported incident is classified as either:

- Substantiated - incidents where abuse and/or neglect are confirmed
- Indicated - incidents where abuse and/or neglect is suspected but there is insufficient evidence to confirm it
- Unsubstantiated - incidents that are reported but no evidence of abuse or neglect is found

The indicators of child maltreatment presented in this report include incidents that are classified as either substantiated or indicated. There is some debate in the field about the meaning of the indicated category, but it is generally agreed that the difference between substantiated and indicated has to do with the certainty of the evidence that is available to the investigator rather than the seriousness of the situation. An additional complication in calculating maltreatment rates is that the agency may receive multiple reports about the same situation or occurrence. Most of the rates in this report are based on an unduplicated count of the children with one or more reports of maltreatment in a given period. This allows for the calculation of a rate that uses the child population or the birth cohort as the denominator.

Table 2.5 presents the counts of children who were maltreated and the maltreatment rates, expressed as percentages of the age-specific population organized by calendar year from 1992 through 2001. The rates of child maltreatment have remained fairly level throughout the decade. Approximately, 3.4% of children under age 6 in Cuyahoga County had a substantiated or indicated abuse or neglect incident in 2001.[4]

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[4] We also calculated maltreatment rates in three other ways but all methods showed similar trends. One method used just substantiated incidents. A second method included unsubstantiated incidents. A third method involved removing incident reports within 7 days of birth on the assumption that they were a result of positive toxicology screens.

Table 2.5 Maltreatment of Children Under Age 6, Cuyahoga County, 1992-2001

Age at Time of Incident

	1992		1993		1994		1995		1996	
Age	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
0	997	4.8%	977	4.8%	970	4.8%	888	4.5%	949	4.9%
1	560	2.8%	498	2.5%	585	3.0%	490	2.5%	475	2.5%
2	478	2.4%	488	2.5%	531	2.8%	558	2.9%	504	2.7%
3	501	2.6%	512	2.7%	527	2.8%	480	2.6%	579	3.1%
4	463	2.4%	476	2.5%	536	2.8%	529	2.8%	546	2.9%
5	463	2.4%	484	2.5%	473	2.5%	527	2.8%	618	3.2%
Total	3462	2.9%	3435	2.9%	3622	3.1%	3472	3.0%	3671	3.2%

	1997		1998		1999		2000		2001	
Age	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**	**Count**	**Rate**
0	997	5.3%	962	5.2%	898	4.9%	981	5.5%	984	5.6%
1	506	2.7%	520	2.8%	456	2.5%	500	2.8%	585	3.3%
2	500	2.7%	469	2.5%	459	2.5%	525	2.9%	549	3.0%
3	594	3.2%	502	2.7%	445	2.4%	496	2.7%	517	2.9%
4	620	3.3%	532	2.8%	468	2.5%	480	2.5%	530	2.8%
5	629	3.3%	632	3.3%	499	2.6%	507	2.7%	517	2.7%
Total	3846	3.4%	3617	3.2%	3225	2.9%	3489	3.2%	3682	3.4%

Source: Cuyahoga County Department of Children and Family Services.

The maltreatment rate in Cuyahoga County appears to be higher than the maltreatment rate for the nation as a whole, although no directly comparable figures have been published. The latest government report based on a compilation of state data gives the maltreatment rate for children from birth to age 3 as 1.4% (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2001).

Another way to look at child maltreatment that is pertinent to the ECI is to track birth cohorts to determine the probability that an individual in that cohort experienced an incident of child abuse or neglect during the first 6 years of life. This way of looking at the data can show whether the chances of being maltreated (i.e., the hazard) are improving for infants born since the ECI got underway. The hazard rates[5] for successive birth cohorts are presented in Table 2.6. The table is only partially complete because recent birth cohorts have not yet completed their fifth year of life. The entire 2000 birth cohort will not reach age 6 until December 31, 2006, so their total victimization rate cannot yet be calculated. Prior birth cohorts are quite similar in their victimization rates and several more years of data will be needed to pinpoint how the onset of the ECI affects this trend.

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[5] To analyze the chances of maltreatment by birth cohorts survival analysis methods were adopted. Specifically, in this analysis all the substantiated and indicated child abuse and neglect reports from 1992 through 2000 were combined. Reports were then organized by the birth year of the child and the age the child was at the time of his or her first report was determined. For each birth cohort, the number of children with an initial incident by age 0, 1, 2, 3, 4 & 5 was counted. For each birth cohort, a hazard rate of being maltreated at each age between 0 and 5 was then calculated. The denominator for the hazard rate at each age is the number of infants in the birth cohort, minus those who have already been maltreated.

Table 2.6 Probability of Experiencing a Maltreatment Report by Birth Cohort and Age at First Report (Hazard Rate)

	Age of Victim at First Maltreatment						
Cohort Year	**0**	**1**	**2**	**3**	**4**	**5**	**Victimization Rate by Age 6**
1992	4.23	2.13	1.91	1.76	1.87	1.80	**13.7**
1993	4.39	2.01	1.85	2.03	1.85	1.79	**13.9**
1994	4.33	1.90	1.92	1.88	1.56	1.50	**13.1**
1995	4.44	2.08	1.90	1.69	1.69	1.89	**13.7**
1996	4.73	2.25	1.77	1.77	1.85		
1997	5.03	2.06	1.84	1.94			
1998	4.64	2.15	2.40				
1999	4.76	2.62					
2000	5.42						

Source: Child Maltreatment Data, Cuyahoga County Department of Children and Family Services.
Note: Unable to calculate 2001 rate since birth cohort figure has not been released.

Table 2.6 shows that the risk of a maltreatment report is about 2 times greater during the first year of life than in subsequent years. This pattern holds true for all of the birth cohorts studied. It also appears that infants born in 2000 were more likely to have a substantiated or indicated child abuse or neglect report in their first year of life than previous birth cohorts. Table 2.6 also provides a sense of the size of the impact of child maltreatment on the Cuyahoga County early childhood population. If the experiences of the 1992 to 1995 birth cohorts were to be repeated, we would expect approximately 14% of the children to have at least one substantiated or indicated incident of maltreatment reported by the time the cohort enters kindergarten. Thus, although child abuse and neglect seem relatively rare in a given year, the experience touches a sizable proportion of families during the early childhood years.

The above comparison of birth cohorts does not test whether the differences are statistically significant nor does it adjust for the possibility that the birth cohorts may vary on demographic or other risk factors. To accomplish these aims, a statistical model was estimated in which information from birth certificates was used for statistical control. Sometimes known as survival analysis, the model accounted for the fact that the birth cohorts varied in the length of observation.[6] The results of the statistical analysis suggest several tentative conclusions. First, there is a small but statistically significant increase in the probability of having a first incident of child abuse and neglect for the 2000 birth cohort even after controlling for demographic and other risk factors. However, it should be noted that the statistical model reflects little post-ECI experience because children born after July 1999 have only been observed for a relatively short period. Second, several demographic factors on the birth certificate are powerful predictors of increased risk regardless of birth cohort. Holding other factors constant, children born to unmarried mothers are three times more likely to be reported for child abuse or neglect as those born to married mothers. Children born to mothers who already have at least one other child are at almost twice the risk for a child abuse or neglect report as firstborn children. Children born to mothers with less than a high school education are at nearly twice the risk of all other educational groups. Children born to African American mothers are about 30% more likely than those born to White mothers to be reported when all of these other factors are taken into account. The increased risk for teen mothers is quite small after controlling for other factors.

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[6] Life table estimates of the hazard and survival functions were obtained. Multivariate Cox Proportional Regression Models were developed to investigate the factors associated with the risk of having a first incident of child maltreatment for the birth cohorts 1995 to 2000. The first incidents were analyzed according to three groups: all incidents, substantiated/indicated incidents, and incidents not including the first 3 days report. Child's sex, having a prior live birth (now living), maternal age, marital status, education, and race were factors obtained from the birth records and included in the model. All statistical tests were two-tailed with conventional significance levels (Alpha=.05). Detailed results of the statistical models are available upon request from the authors.

Secondary prevention of child abuse and neglect is another important objective for young children in the County. Secondary prevention is reflected in the degree to which children who have a first incident of child maltreatment can avoid additional incidents of maltreatment as a result of early detection and treatment. This possibility is examined in Table 2.7, which tracks children who have had a first incident of child maltreatment to determine their chances of having a second incident.[7] The data are organized by birth cohort and age of the child at the time of the first incident. This analysis focuses on second incidents within 1 year of the first incident, because data are available only through 2001. There was a declining trend in second incidents of maltreatment in the birth cohorts born after the start of ECI.

Table 2.7 Percentage of Children Under Age 6 Experiencing a Second Incident of Child Maltreatment Within 1 Year of the First Incident, by Birth Cohort and Age at First Incident, Cuyahoga County, 1992-2000

	Age of Victim at First Maltreatment					
Cohort	**0**	**1**	**2**	**3**	**4**	**5**
1992	13.0%	13.3%	13.6%	12.3%	16.0%	15.1%
1993	15.6%	14.8%	13.1%	15.7%	17.9%	14.4%
1994	13.6%	11.9%	16.1%	16.3%	15.1%	14.8%
1995	14.7%	18.2%	18.4%	16.2%	13.2%	11.4%
1996	13.0%	17.0%	14.6%	8.2%	14.5%	
1997	14.2%	13.4%	14.2%	12.4%		
1998	13.3%	13.4%	8.2%			
1999	11.0%	12.8%				
2000	8.5%					

Source: Child Maltreatment Data, Cuyahoga County Department of Children and Family Services.

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[7] A second incident is defined as a report that occurs at least 30 days after the first incident. This definition is used to avoid counting multiple reports of the same incident as a second incident.

Child Health Insurance

Access to health care is fundamental to the health of young children, and children without health insurance are often denied access to regular care. Therefore, the percentage of children under age 6, who lack health insurance, is an important statistical indicator of access to health care. A national polling firm conducted a telephone survey in 1998 and 2001 of a probability sample of Cuyahoga County households and health insurance coverage was a topic.[8] The results of this survey are tabulated in Table 2.8 for children under age 6.

Table 2.8 Number and Percentage of Children Under Age 6 with No Health Insurance Coverage, Cuyahoga County, 1998-2001

Year	Number of Uninsured Children	Percentage of Uninsured Children	90% Confidence Intervals
1998	12,343	10.5	5.6-15.3
2001	2,206	2.1	0-4.5

Source: Weiner & Coulton, 2001

The change in the proportion of children under 6 who were uninsured fell markedly between 1998 and 2001. The change was statistically significant ($p < .01$). This represents an unprecedented decline in uninsurance rates that can be attributed, in part, to the expansion of Healthy Start/Medicaid eligibility, and to outreach that was part of the ECI. Additionally, the percentage of children leaving welfare who keep their Medicaid coverage has also risen to 88% (Coulton, Pasqualone, et al., 2001).

Child Deaths

Early childhood deaths are another indicator of child health. Therefore, reducing the age specific death rate of children under 6 is an objective of the ECI. Table 2.9 displays deaths of children under 6 from 1990 through 2000. It also displays the death rate per 1000 children. The trend in child death rates over the decade has been clearly downward, especially in infant deaths. However, there was little change between 1998 and 2000, and it is too early to determine whether the introduction of the ECI will be associated with a further decline in child deaths.

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[8] The Federation for Community Planning designed and managed the survey in Cuyahoga County. The survey was weighted since various groups were over-sampled. Standard errors were computed using statistical software that adjusts for the design effects of the weights (SUDAN®, 2001).

Table 2.9 Deaths of Children Under Age 6 and Death Rate per 1000, Cuyahoga County, 1990-2000

Age	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<1	329	291	289	268	254	239	189	206	170	175	178
1	17	21	14	14	15	20	9	4	9	9	5
2	11	8	9	7	7	8	11	6	5	5	10
3	11	10	3	11	9	9	4	8	6	4	10
4	6	2	4	8	8	6	3	2	5	7	5
5	6	3	4	5	2	3	7	5	3	3	3
Total	**380**	**335**	**323**	**313**	**295**	**285**	**223**	**231**	**198**	**203**	**211**
Death Rate	**3.2**	**2.8**	**2.7**	**2.7**	**2.5**	**2.5**	**2**	**2**	**1.8**	**1.8**	**1.9**

Source: Center on Urban Poverty and Social Change, Case Western Reserve University: generated using Cleveland Area Network on Data and Organizing (CAN DO), http://povertycenter.cwru.edu.cando.htm, Death Statistics, 1990-2000.

Enrollment in Child Care and Pre-School Programs

The ECI envisions a system of quality care and early education for all young children in Cuyahoga County. This commitment derives from the growing evidence that effective early childhood education can prevent academic failure and other negative outcomes in later years, especially for at-risk children (Karoly et al., 1998). Towards that end, the ECI endeavored to expand access to quality child care providers and to link children age 3 to 5 to pre-school programs.

With respect to child care enrollment, an indicator of progress is the number of children enrolled in regulated child care. Starting Point, the County's child care resource and referral agency, periodically conducts a survey of family- and center-based child care providers. The survey obtains information on enrollment from each provider. Table 2.10 uses Starting Point's survey to estimate the number of children enrolled in regulated child care. It appears that there was a substantial increase in the number of children in regulated care between 1996 and 1998 and a further increase by 2000. The rate of increase was greatest for children under age 3, a group specifically targeted by ECI.

Table 2.10 Number of Children Enrolled in Regulated Child Care by Age Group/Setting, Cuyahoga County, 1996, 1998, 2000 and 2002

Year	Infant (0-17 months)	Toddler (18-36 months)	Pre-School (37-60 months)
1996	1,309	2,781	21,359
1998	2,420	5,316	25,556
2000	3,268	6,198	24,608
2002	3,957	7,525	21,900

Source: Starting Point Child Care Resource and Referral System.

An additional indicator of improved access to child care in recent years comes from data on the use of child care vouchers to pay for care. Families with incomes below 185% of poverty are eligible for help in paying for child care. The number of families redeeming child care vouchers has increased steadily since the inception of the ECI. The growth has been most visible among family child care homes whose expansion and quality have been explicitly targeted by ECI programs. Figure 2.2 shows the upward trends in monthly use of child care vouchers in Cuyahoga County.

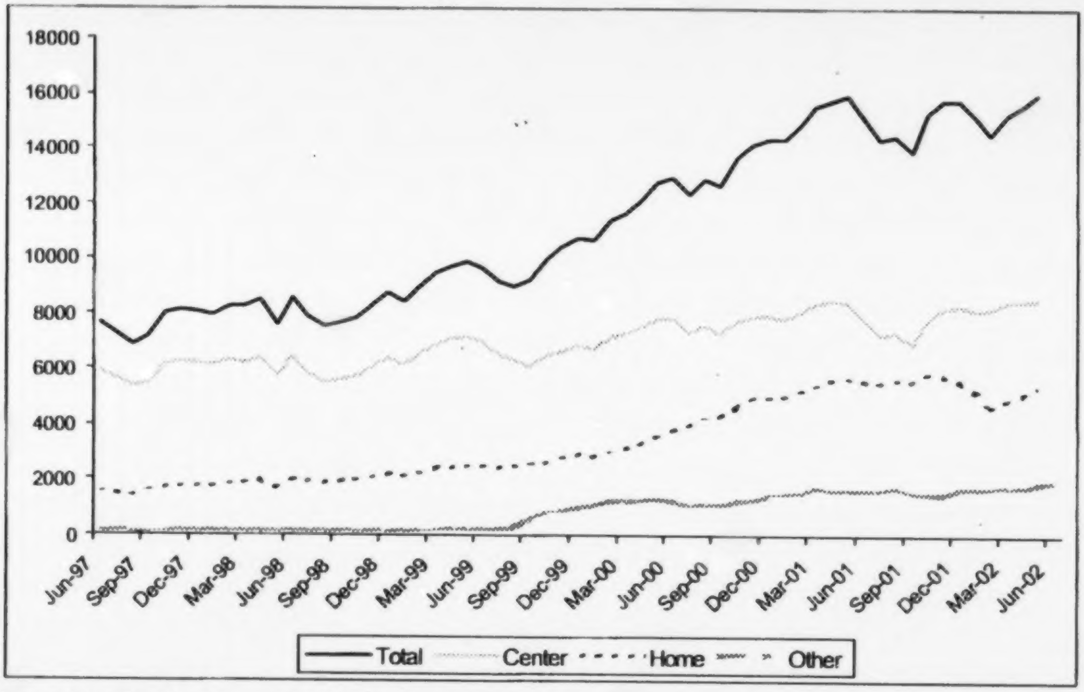

Figure 2.2 Monthly Use of Child Care Vouchers, Children Under Age 6, Cuyahoga County, June 1997 to June 2002

Source: Cuyahoga County, Daycare Voucher File.

Pre-school enrollment is difficult to track for the child population, because it is provided in many settings that are not part of an organized system of care. Some low-income children may be enrolled in Head Start, but since it is half-day, many others are now participating in pre-school programming within the context of all-day child care centers. Public pre-school for children with special needs is administered through numerous local Boards of Education. Myriad non-profit and neighborhood-based organizations operate pre-school programs as well. Thus, valid and unduplicated counts of enrollment cannot be obtained at the present time.

The lack of data prompted the evaluation team to request that several questions about pre-school enrollment be included in the 2001 Ohio Family Health Survey for Cuyahoga County residents. Respondents were asked whether their children, ages 3 to 4, were participating in pre-school programs such as Head Start, a private pre-school, a pre-school program within a child care center, or a public pre-school. The question was identical to the question asked on a national survey, so the results in Cuyahoga County can be compared to a national average.

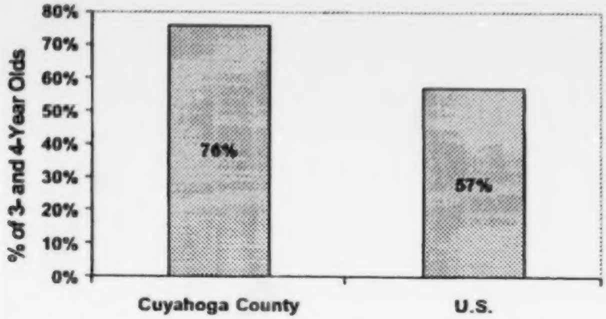

Figure 2.3 Enrollment of 3- and 4- Year Old Population in Pre-School

According to the survey data, the estimate of pre-school enrollments for children ages 3 and 4 in Cuyahoga County is 76%.[9] As illustrated in Figure 2.3, this compares favorably with a national enrollment rate of approximately 60% for the latest year reported, which is 1999 (U.S. Department of Education, National Center for Education Statistics, n.d.). Thus, Cuyahoga County pre-school participation probably exceeds national averages, but about one-quarter of families with 3- and 4- year olds are not utilizing pre-school programs. This survey should be repeated to determine whether enrollment rises as the ECI progresses.

Early Identification of Children with Disabilities

Children with developmental delays and other disabilities should be identified as early as possible so that their families can receive timely services. Through its network of services and public information, the ECI anticipated that children with special needs would be identified and involved with Early Intervention (EI) services earlier in life. The age at which children receive their first Individualized Family Service Plans (IFSP) is used as an indicator of early identification. Table 2.11 shows the number of children in EI by birth cohort and their age at their first visit. It can be seen that the number of children with their first visit before 6 months of age has more than doubled since the inception of the ECI. EI also appears to be reaching a larger percentage of the birth cohort since ECI began. For example, even though they have only been tracked through 24 months of age, the 2000 birth cohort already has 4.33 % of its children identified by EI.

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[9] The survey sample had only 120 respondents with children ages 3-4. The 95% confidence interval is between 60 and 90%.

Table 2.11 Number of Children in Early Intervention (EI) by Birth Cohort and Age at First EI Visit

Birth Year	0-6 Mo	6-12 Mo	12-18 Mo	18-24 Mo	24-30 Mo	30-36 Mo	≥36 Mo	Percentage of Cohort
1997	145	71	50	80	86	83	51	2.97
1998	230	92	71	93	161	123	17	4.18
1999	411	141	108	126	134	41		5.24
2000	456	192	117	47				4.33

Conclusion

The ECI, through its new and expanded programs, policy advocacy, and systems reform, aims to enhance the well-being of all children in Cuyahoga County in their early years. This chapter shows the trends in selected child well-being indicators that ECI has targeted for improvement. While the interpretation of trends requires that measures be taken at multiple time points, most of the period studied here is pre-ECI. Children born in 2000, the first birth cohort to have had the opportunity to take full advantage of the influence of the ECI will not reach their fifth year of life until 2005. Thus, it is simply too early to determine whether all of the trends have moved in the desired direction. Moreover, there are not sufficient data points to test the trends for their statistical significance. Nevertheless, several tentative conclusions can be drawn from the indicators.

In line with its goal of "Healthy Children," the ECI embraced the goal of reducing the number of uninsured children in Cuyahoga County. The remarkable drop in the percentage of the population under age 6 that is uninsured to just over 2% is evidence that the goal is being achieved. Lack of health insurance is a documented barrier to receiving timely and high quality health care, and this barrier has been removed for almost all of Cuyahoga County's young children. Child deaths, an additional indicator of health, have been decreasing since the early 1990s. Low birth weight rates and the proportion of women with inadequate prenatal care, however, have not declined, supporting the wisdom of ECI's pilot work with mothers in the prenatal period.

Enabling young children to receive high quality child care and to have access to pre-kindergarten education is also an important aim of ECI. Enrollment in regulated child care and pre-school were chosen as indicators of these goals. The indicators show that enrollment of children less than 3 years of age in regulated child care, especially in child care homes, has increased in recent years. Although no baseline data were available on pre-school enrollment, a recent survey shows that the percentage of 3- and 4-year olds attending pre-school programs in Cuyahoga County is above the national average.

In line with its goal of promoting effective parents, ECI chose child abuse and neglect as an important outcome indicator. The fact that child maltreatment rates have remained relatively high and show no signs of falling, as yet, is of concern. The reported maltreatment rates are particularly high among recent cohorts in their first year of life. It is possible that this could be due to increased awareness, or policy changes rather than a real increased incidence of maltreatment. However, it raises the question as to whether the ECI programs that could actually prevent child abuse and neglect are not serving enough of the at-risk families in the County. For example, this study found that the highest risk for child abuse and neglect was among second or third born children born to unmarried mothers with less than a high school education. Although many such families may be referred to Early Start or other ECI programs later in life, they do not get the Welcome Home visit that might engage them in effective parenting programs earlier in the life of the newborn because the program only targets first-time and teen mothers.

Secondary prevention of child abuse and neglect shows a more positive picture in recent years, however. For the two most recent birth cohorts, rates of second instances of child abuse and neglect have fallen. This pattern may be indicative of improvements in services to children and families who have already been identified as maltreated. It is possible that earlier identification of risk through ECI programs is contributing to earlier first reports that are followed by secondary prevention.

Another indicator of effective parents is family self-sufficiency. Two measures show positive trends in this regard. There has been a rapid decrease in the percentage of Cuyahoga County's children who are in welfare-reliant families. Also, between 1989 and 1999 the poverty rate of families with children under 5 also went down. While many families leaving welfare end up at or near the poverty level, the fact that poverty rates of female-headed families with young children fell markedly suggests that many families are better off economically. The recent recession, though, poses challenges for the ECI since unemployment could increase the material needs of many families.

Finally, early identification of children with special needs is a predictor that they will get more timely access to services supporting parent effectiveness. There is evidence that since ECI began many more children with special needs are being identified and served in their first 12 months of life.

Tracking of these indicators will continue as the ECI develops and increases its programs, policy impacts, and system reforms. Now that the baseline has been established, it will be possible to compare birth cohorts over time in an effort to better isolate the influence of the ECI on the well-being of the population of young children in the County. In the future it will also be important to further examine the characteristics of children and families who are at risk for poor outcomes. This examination will aid in refining the outreach and targeting of various components of the ECI.

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Chapter 3
The Scope and Reach of the ECI: Coverage and Connections of ECI Programs

Claudia Coulton, Julia Withers, Maruza Andrade, and Rob Fischer

Chapter Summary

This chapter examines the scope and reach of the Early Childhood Initiative (ECI) in terms of the early childhood population (age birth to six years of age) in Cuyahoga County. The conclusion is that the scale of ECI programs grew rapidly since the Initiative was launched in July 1999. Some element of ECI is now reaching the vast majority of newborns and their families. As intended, the reach is both broad and focused. Most families avail themselves of only one ECI service but others, especially families in poor neighborhoods, are involved with several components of the ECI along with other public programs. This pattern of service is consistent with a model system that is universal but also intensive for challenged families and vulnerable children. Specific accomplishments include:

- In its first 2.5 years, the ECI reached nearly 83,000 Cuyahoga County children prenatal to six years of age. Approximately 68% of children born since July 1999 have received one or more ECI services.
- Infants are being served earlier in life as the Initiative unfolds. For the most recent birth cohort on which complete data are available, 63% had contact with at least one ECI service before 3 months of age.
- Approximately 25% of all children under 6 and 34% of infants under 1 year old who are touched by ECI rely upon services from more than one of the components. The most common combination is Welcome Home and Healthy Start/Medicaid.
- ECI families also rely on a number of other public services. For example, nearly 60% of the families who receive an ECI service also participated in the Food Stamps Program. Fourteen percent have an open case in the Department of Children and Family Services. The overlap with other public systems is greater for Early Start families than for those using other ECI services.
- Families in every part of the County are touched by ECI. Welcome Home has the widest geographic spread with more than 58% of its participants residing in the suburbs. Children that receive multiple and intensive ECI services are concentrated in low-income neighborhoods within Cleveland where the need is great.

That ECI has built a system that combines such breadth and depth is a message that should be articulated to the public so that new parents know that their community values very young children and stands ready to assist them during this vital stage of development. Now that this comprehensive system is in place, the ECI should determine whether those infants and young children who are not being reached or who have minimal contact have additional needs that could be addressed in the future. Moreover, for the relatively small group of intensive users of ECI and other public services, the Initiative should explore whether service coordination is adequate.

Introduction

Although the Early Childhood Initiative comprises multiple individuals, agencies and programs, its vision is singular—a system that fosters and supports effective parents, healthy children and high quality child care for all. The system, as envisioned, is more than just services but includes the connections among families and organizations. To achieve that vision, the scope of the ECI has to be broad and it must extend its reach to all who have a need for such supports. However, systems and populations in need are abstract concepts that are difficult to quantify in reality. This chapter, in a limited way, addresses the question of the scope and reach of the ECI system by tracking birth cohorts to determine the degree to which they become enrolled in the multiple ECI service components. It also examines the overlap of the ECI population with other public services and the geographic spread of ECI programs across the County. ECI services are defined as (a) home visiting through the Welcome Home or Early Start programs, (b) home-based child care at a home certified during ECI, (c) technical assistance and placement services delivered through the special needs child care program, (d) early intervention (EI) services, and (e) enrollment in the Healthy Start/Medicaid program.

Methodology

The methodology of this chapter is to track participation in ECI programs and other public services by the population of children in Cuyahoga County who were under 6 years of age at any time between July 1999 and December 2001. This window was chosen because ECI began in July 1999 and full data were available through December 2001. ECI defined as its target population all County residents from birth through age five. Much of the analysis organizes the data by 6-month birth cohorts. A birth cohort includes children who were born during each 6-month period.

Computerized individual records fom ECI programs and public agencies served as the data sources for these analyses. All records were processed on highly secure servers and could be accessed only by authorized personnel certified in guarding the privacy of records. The data processing and storage methods complied with the University's regulations on the protection of confidential data. The study population was identified from the following administrative records:

> ***Birth certificates***: Birth certificate records for Cuyahoga County residents were obtained from the Ohio Department of Health. Records of all live births were extracted for calendar years 1993 through 2000, to include all children who would have had the opportunity to be reached by an ECI service before their sixth birthday.

Data on Use of ECI Services:

> ***Home Visiting and Early Intervention***: Records of participation in the Help Me Grow programs--Welcome Home, Early Start and Early Intervention--were extracted from the KIDS database. Children who were under 6 years old between July 1999 and December 2001 and had at least one visit by Welcome Home or Early Start, or completion of an Individualized Family Service Plan (IFSP) through Early Intervention recorded in the database were counted as participating in the program.
>
> ***Medicaid Enrollment***: Monthly extracts of Medicaid eligibility records were obtained from the Ohio Department of Job and Family Services' (ODJFS) Client Registry Information System-Expanded (CRIS-E) system. Children who were under 6 at the time

and had at least one month of eligibility for Medicaid between July 1999 and December 2001 were counted as participating in that component of ECI.

Family Child Care: Children who received care in family child care homes that were part of the ECI were identified through their County child care vouchers. The family child care homes in ECI were listed and matched to the voucher file prepared by ODJFS. Children who received at least one month of care in these ECI family child care homes between July 1999 and December 2001 and were under 6 years of age were counted as participants. This method misses the estimated 20% of children in these family child care homes who were not using child care vouchers.[1]

Special Needs Child Care: A database from Starting Point was used to identify children whose child care providers were given technical assistance on their behalf or for which placement services were provided. However, children for whom there was no signed parental consent form were not included in the database (approximately two-thirds of the special needs children served). Given this, special needs child care services are not included in selected analyses.

Data on Use of Other Public Programs:

Welfare and Food Stamp Records: Children receiving cash welfare (Ohio Works First, OWF) and/or Food Stamps in Cuyahoga County were identified from monthly extracts from ODJFS's CRIS-E system.

Child Care Vouchers: Children who received child care (center-based or home-based) through the use of County child care vouchers were identified in the database maintained by ODJFS. Children who received at least one month of care subsidized through the use of a voucher between July 1999 and December 2001 and were under 6 years of age were counted as participants.

Child Welfare: Child welfare participation was determined using records from Cuyahoga County Department of Children and Family Services. Children who were under 6 years old and had an open case with the agency at any time between July 1999 and December 2001 were counted as child welfare participants.

In order to determine which children received multiple ECI and public services it was necessary to match the records extracted from the above data sources to create a single record per child. The data sources did not all contain common or unique identifiers so probabilistic matching was performed. The data entities were matched using the individual demographic information for each child according to the variables common to both databases. The variables included: child's date of birth, child's first name, child's last name, mother's date of birth, mother's first name, mother's last name, street name, street number, city, zip code, sex, social security number, and Soundex variables for names. Two SAS macros were obtained from the Manitoba Centre for Health Policy [http://www.umanitoba.ca/centres/mchp/]. One macro was used for computerized probabilistic linkage, and the second macro was used to create Soundex variables based on names to compensate for some of the inconsistencies found in misspelled names.

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[1] Based on sample data from the Family Child Care Homes portion of the ECI evaluation, 20% of the children present at the time of observation were not using a child care voucher; of these, half were the care provider's own children and the other half were private-pay clients.

Data sets for matching were prepared for each of the data entities. Various blocking strategies were employed in which a successful match required congruity between data sets on specific variables (i.e., child's date of birth, sex, and the Soundex value of the child's first name). The birth certificate data served as the base of the matching, and all other data entities were first matched to the birth certificate data. Records that could not be matched to the birth certificates were matched to the Early Childhood Initiative Register, a cumulative data file of all children appearing in any data set, including children not born in Cuyahoga County. Evaluation of each matching process involved the following procedures: (a) analysis of the probabilistic weights, (b) assessment of the child's first and last names, (c) assessment of the child's date of birth (in the case of strategies that were not blocked by the date of birth), (d) analysis of ties (these included twins and siblings as well as duplicated assignment to entities' identification key variables), and (e) random sampling of all of the matching records (10% were clerically reviewed).

A master file known as the Early Childhood Initiative Index File was developed, with the unique identifiers for each of the data entities matched to each other and to an ECI Identifier that has been created for the purposes of the evaluation. All records were geocoded so that they could be analyzed spatially. Unless otherwise noted, the maps are based on the home address of the child on the date of receiving his or her first ECI service. In other words, a map of Medicaid participants would be based on the first address in the data file for that child after ECI began in July 1999. Maps that show the location of children who used multiple ECI services use the child's address at the time of the first service.

Some of the analyses in this chapter required the calculation of a proportion of the birth cohort that received an ECI service. The birth certificates provide a fairly accurate estimate of the size of the birth cohort at the outset, but as the birth cohort ages, migration begins to have an effect. Since the counts of ECI program participants are cumulative, the denominator in most instances has been adjusted for in-migration. In other words, the size of the birth cohort is adjusted upward for an estimate of the number of individuals born in that time period who would have moved in to Cuyahoga County. The in-migration adjustment for one year is fairly trivial (i.e., approximately 1%) but this will accumulate over time. The question remains as to when and how to adjust for out-migration rates. Children born in the County who later move out have a chance to participate in ECI, even though their ECI exposure is cut short. Future research reports will use a statistical model that adjusts for the effect of in- and out-migration on the length of ECI exposure. Since this report only covers 2.5 years of participation, the bias due to out-migration should be minimal at this point.

Population Coverage

If the ECI has been successful in creating a system of supports and services for the early childhood population, it should be touching large numbers of children early in life. Although there is no way to know precisely how many Cuyahoga County children and families are actually in need of ECI services, the assumption of ECI was that it needed to achieve a large scale so that any and all with a need could be served. Therefore, this section addresses the question: What proportion of the early childhood population has received one or more ECI services and by what age are they first involved? If the ECI is moving to scale as hoped, an ever greater proportion of young children will be enrolled at earlier ages, until some plateau is reached that exhausts the need.

In order to examine the reach of ECI, Table 3.1 presents unduplicated counts of the number of children in the County who have a record of being reached by one or more ECI services since its inception.[2] The counts are organized by birth cohort and by the age at which the child was first served by an ECI program. Between July 1999 and December 2001, the ECI reached nearly 83,000 children. An examination of the column labeled "percent of birth cohort" shows that the percentage of recent birth cohorts reached by ECI is approximately 70% and that this coverage rate has been increasing over time.

Table 3.1 Number of Children Served by ECI, by Birth Cohort and Age at First Encounter for Children Born (July 1993 - December 2001)

Birth Cohort	prenatal	3 mo	6 mo	12 mo	18mo	24mo	30 mo	36 mo	48 mo	60 mo	72 mo	Total Served	% of Birth Cohort Served
Jul-Dec 93											2,316	2,316	19%
Jan-Jun 94											3,265	3,265	28%
Jul-Dec 94										2,227	1,256	3,483	30%
Jan-Jun 95										3,144	564	3,708	32%
Jul-Dec 95			*Pre-ECI Period*						2,273	1,222	597	4,092	36%
Jan-Jun 96									3,192	577	417	4,186	38%
Jul-Dec 96								2,602	1,186	615	166	4,569	42%
Jan-Jun 97							2,564	803	641	442		4,450	42%
Jul-Dec 97						2,761	873	326	626	176		4,762	45%
Jan-Jun 98					2,820	833	405	326	415			4,799	46%
Jul-Dec 98				3,159	819	315	349	277	110			5,029	50%
Jan-Jun 99		1,291	2,131	750	266	284	261	163				5,146	52%
Jul-Dec 99	73	5,809	431	327	297	217	129					7,083	74%
Jan-Jun 00	276	5,392	453	361	277	113						6,872	69%
Jul-Dec 00	382	5,522	562	340	126			*Complete Data Not Yet Available*				6,932	72%
Jan-Jun 01	397	5,677	475	226								6,775	71%
Jul-Dec 01	527	4,684	135									5,346	56%
Total	1,655	28,175	4,187	5,163	4,605	4,523	4,581	4,497	8,443	8,403	8,581	82,813	46%

Note: Percent of birth cohort figures were calculated by dividing the number of children served by the estimated birth cohort size adjusted for in-migration.

Children have experienced varying lengths of exposure to ECI. For example, the second most recent birth cohort (Jan-June 2001) has only been followed through December 2001. By that time, the children born in January had almost reached their first birthday, but the children born in June had only attained 6 months of age. This problem is referred to as "right censoring" because not all children in the table have been observed for a full 6 years. Indeed, as time goes by additional children in this birth cohort will come to have contact with ECI. Even though recent cohorts are underestimated in their potential ECI involvement, it can be seen that ECI is reaching a growing percentage of subsequent birth cohorts. Thus, a longer period of follow-up with these recent birth cohorts is likely to show an even higher coverage rate as the infants mature.

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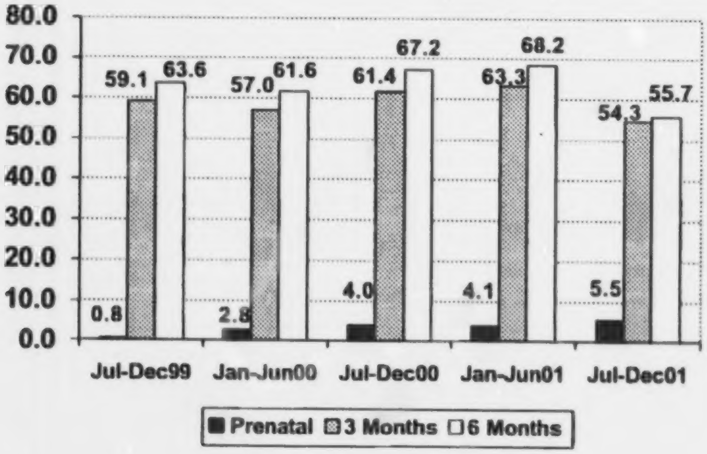
[2] This analysis relies on computerized records on each individual served that were supplied by the agencies delivering the ECI services. Most of the records are believed to be fairly complete. However, with respect to special needs child care, there are significant gaps in records. Since these are unduplicated counts, though, if a child who is missing from the special needs child care records also received another ECI service, he or she will be counted. Thus, the undercount is believed to be relatively small in this particular analysis.

Another important aspect of a successful early childhood program is that it reaches children early in life so that their needs for health care, effective parenting and quality child care can be met from the start. Figure 3.1 focuses on children born since the inception of ECI and examines their ECI contact prenatally and during the first 6 months of life. Indeed, as the figure shows, infants are being reached earlier in life. The percent of newborns with an ECI contact prior to 3 months of age increased from 59.1% in July-December 1999 to 63.3% by January-June 2001. Three and six month data are incomplete for the July-December 2001 cohort but, despite this, ECI had already reached over half the children by these age demarcations. In addition, the percent of children reached prior to birth has increased from under 1% in July-December 1999 to 5.5% in July-December 2001. Thus, not only has total coverage risen with each birth cohort but ECI programs are now reaching more families in those crucial early stages of life.



Note: For the July-December 2001 cohort, follow -up data are incomplete for children not yet reaching the 3 or 6 months of age by December 31, 2001.

Figure 3.1 ECI Contact with Young Children: Cumulative Percent of Recent Birth Cohorts Reached Prenatally and by 3 and 6 Months of Age

Cross Program Involvement

Although the ECI is universal in that it has services that might be used by any and all families of young children, each of its component programs was intended to meet specific needs of the early childhood population. A relatively small group of families may need to use several of the services that ECI has to offer, while others may benefit from only one ECI component. If ECI is working effectively as a system, families served by one component will find it easy to access other services when and if they need them. At the same time, the most vulnerable families will be able to avail themselves of all that the ECI has to offer.

Figure 3.2 illustrates the fact that some ECI services are highly specialized while others are directed toward a large proportion of the early childhood population. The figure displays the use of ECI services by all children who were under 6 years of age between July 1999 and December 2001 (N=82,813). (Children who received more than one service are counted multiple times). Medicaid, through its expanded eligibility and outreach, is the service used by the largest proportion of young children. Welcome Home, which targets first time and teen mothers, is the second largest program in terms of children reached. Early Start, an intensive home visiting program, reaches a smaller group of families as intended. The Family Child Care Homes (FCCH) component of ECI has reached a large number of children through the numerous providers certified under ECI.[3] The Early Intervention (EI) services have reached a substantial number of children identified as having developmental delays and other conditions requiring specific assistance.

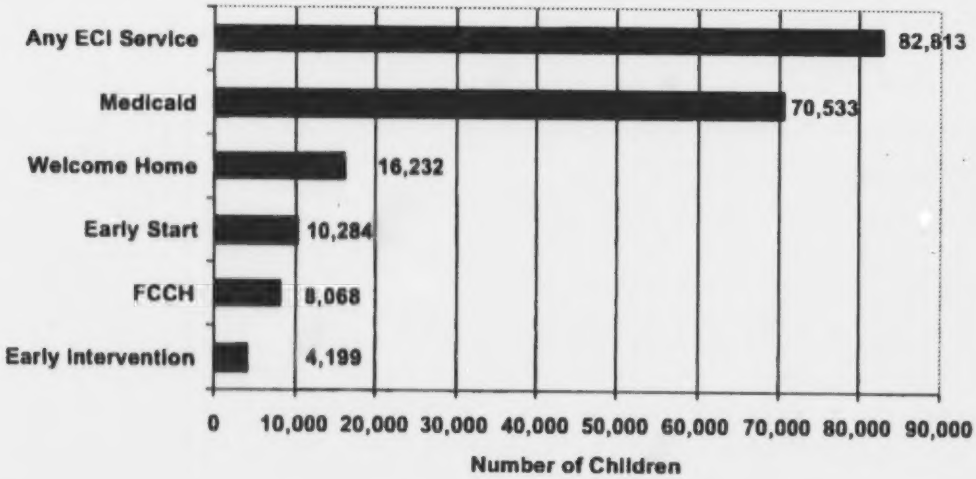


Figure 3.2 ECI Services Received: Number of Children Under Age 6 Served by ECI Programs (July 1999-December 2001)

Another important aspect of the ECI is that it is not one thing but a set of programs designed to fill in what parents and young children in the County may require for health and development. The services can be complementary to one another for those children with multiple needs but families whose requirements are limited can also use them singly. The Initiative expected some degree of intersection among the ECI components and anticipated that families involved in one component might gain information that would enable them to access another component if necessary. Figures 3.3 and 3.4 present the overlap among ECI components. The analysis is performed first for all children under 6 years old and then for children born since the ECI went into effect in July 1999.

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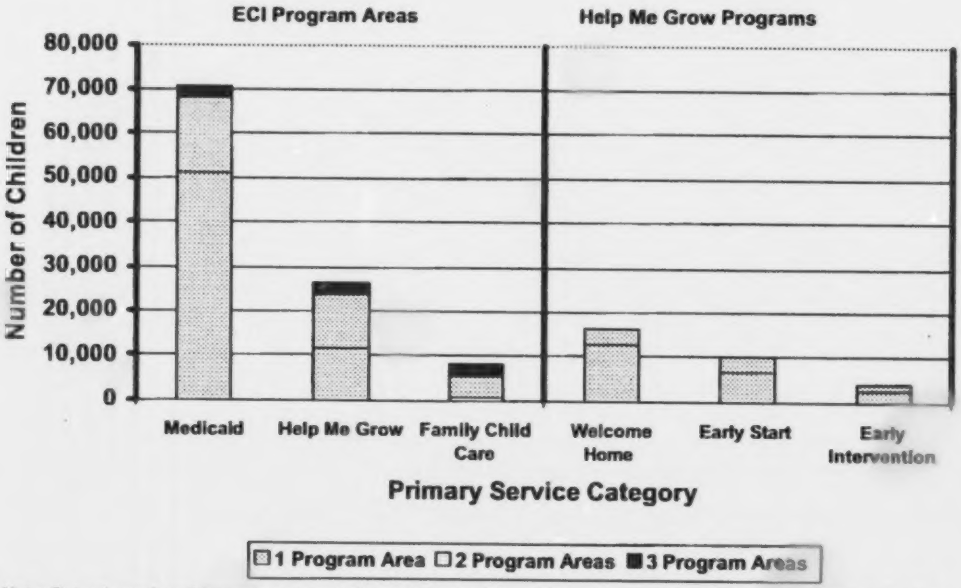
[3] Children getting special needs child care are not in this graph because the large number of missing records would cause the counts to be extremely underestimated.

All Children Under Age 6:

As demonstrated in Figure 3.3, a sizeable group of children taps into more than one ECI component. Approximately one-quarter of those involved in ECI are served by two or more program areas (Healthy Start/Medicaid, Help Me Grow services, Family Child Care). The greatest overlap is between the programs that promote children's health and those that promote effective parenting (i.e., Help Me Grow); fully 55% of children involved in Help Me Grow services also received Healthy Start/Medicaid. Within the three Help Me Grow programs (Welcome Home, Early Start, Early Intervention), there is a lesser degree of overlap, though. Approximately 28% of children with one or more Early Start visits have received a Welcome Home visit first, while 18% of Early Intervention participants have also had a Welcome Home visit. It should be noted that in the initial phases of ECI, all OWF families with children less than 3 years of age were offered an Early Start referral and many of these children were born before Welcome Home was in place.

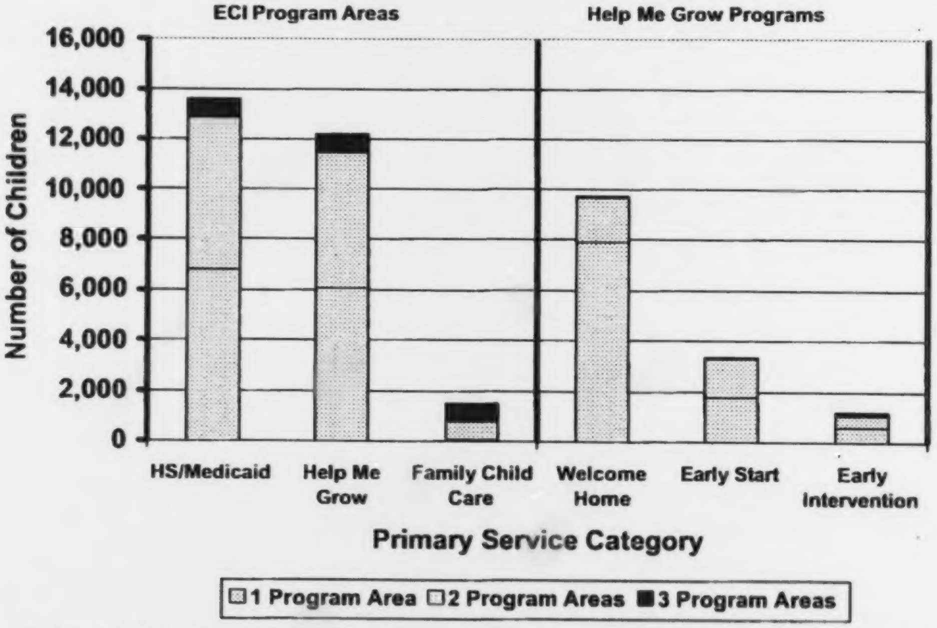


Note: Data shown in columns are not mutually exclusive; children that received multiple ECI services are reflected in multiple columns.

Figure 3.3 ECI Services Received: Number of Children (Under Age 6) Served by Three ECI Program Areas and by Three Effective Parenting Services (July 1999-December 2001)

Infants Born July 1999 to December 2000:

The overlap among programs is larger for infants born since ECI began. This is due to the fact that all ECI services have been up and running since the time of their birth. As such, infants provide a better example of the potential synergy among the ECI components. As demonstrated in Figure 3.4, 34% of infants participating in ECI receive services from two or more ECI program areas.



Note: Data shown in columns are not mutually exclusive; children that received multiple ECI services are reflected in multiple columns.

Figure 3.4 ECI Services Received: Number of Infants Born July 1999-December 2000, Served by ECI Programs by Twelve Months of Age

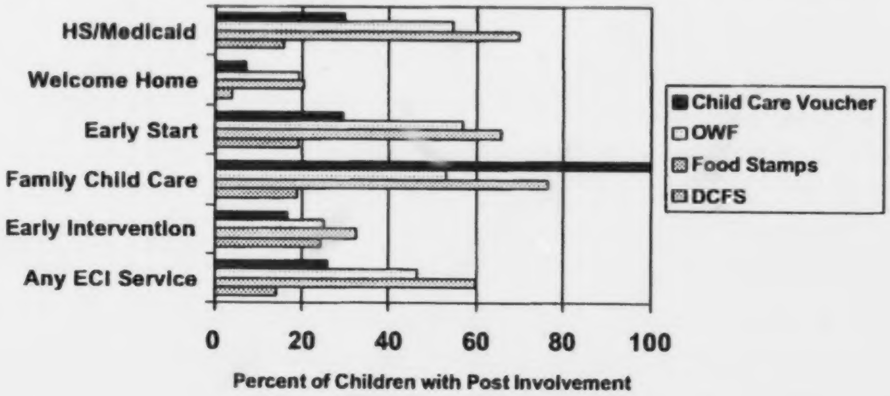
Among infants, there is also considerable overlap among the three Help Me Grow program services. Overall, 19% of infants with a Welcome Home visit later receive Early Start or Early Intervention services. However, 45% of infants who received at least one Early Start visit and 37% of those enrolled in Early Intervention also received a Welcome Home visit. Whether subsequent birth cohorts will show higher rates of overlap between Welcome Home and other programs will depend upon the degree to which Welcome Home's targeting criteria actually taps into many of the families with significant need for these other services. To the extent that Welcome Home misses those families or the families are not ready to accept a referral, there is a need for Early Start and Early Intervention to be networked into other referral sources that can engage the families who could benefit from these more intensive and long-term programs. It is important to acknowledge that overlap itself is less important than assuring that there are multiple portals of entry and that children and their families receive what is optimal for their development in a timely fashion.

Other Public Systems and ECI

The services that have been incorporated into the ECI interface with a number of other public programs that provide additional supports to families with young children. In fact, for some families, ECI might help them to use these public services more effectively. The level of overlap with other public systems was determined by looking at the 6-month period before and after a child entered any ECI service to see whether there was a record of service with one of four other public programs. The results appear in Figure 3.5. Three of the public programs, Ohio

Works First, Food Stamps, and the Child Care Vouchers program (for centers and homes combined) require that participants' incomes fall below poverty, i.e., annual income of approximately $14,000 for a family of three, or near the Federal poverty threshold ($15,020). Welcome Home, Early Intervention and Special Needs Child Care are the ECI programs that have the least overlap with the means-tested public services, in part because they are offered to families regardless of income. Early Start and Family Child Care Homes[4] have the greatest overlap with the means tested public programs. Early Start is targeted to families that need intensive support during the first 3 years of their infants' lives and low income is often a significant stressor for young families. Also, OWF families with children under 3 have all been offered a referral to Early Start in recent years.

Overlap with the Department of Children and Family Services is another important aspect of the interface between ECI and public systems. Early Start, Early Intervention, and Family Child Care all have approximately 20% of their participants with open cases in DCFS. The highest rate is among children receiving Early Intervention services (24%), potentially due to the County's practice of screening all children referred to DCFS for developmental delays and other special needs. Thus, in some instances the open case in DCFS predated the ECI involvement while in other cases it followed. Anecdotally, it is known that referrals flow in both directions and it is also likely that some families' involvement with DCFS and ECI occurs independently.



Note: Samples were restricted to children who could be followed for 6 months after their enrollment in the ECI service. Sample size for each service cohort is as follows: Medicaid (63,290), Welcome Home (13,054), Early Start (8,370), Family Child Care Homes (5,887), Early Intervention (3,404), and any ECI service (73,698).

Figure 3.5 Percent of Children Served by ECI Programs with Post Involvement in Outside Services (Within 6 Months)

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[4] Part of the overlap between child care vouchers and FCCH is an artifact of the way FCCH children are identified in this analysis. If private pay children are served in any of the FCCH homes, they are not identified in a database and cannot be included in this analysis.

The Geography of the ECI

The ECI reaches families throughout the County with its many and varied services and programs. Welcome Home is the most geographically dispersed of the ECI programs. Suburban residents of the County account for 58% of Welcome Home visits, while residents of Cleveland account for the other 42%.[5] Medicaid is also widespread geographically. Of the children who received Medicaid since the inception of ECI, 30% lived in the suburban municipalities within the County. Early Start and Family Child Care are highly concentrated in the City of Cleveland (78% and 81% of enrollees, respectively).

Although the ECI is universal, it is designed to offer more services and supports to families that are challenged or children who are vulnerable. Some of the County's families participate in all three ECI components. The map in Figure 3.6 overlays neighborhood child poverty rates with the locations of these multiply served children. The areas of the map that are not shaded in are non-residential neighborhoods. Poverty is known to be one of the most serious risk factors for young children and it can be seen that many of the multiply served families reside in poor neighborhoods. As such, it appears that ECI has an intense focus on neighborhoods where the early childhood population has the greatest need for assistance to support their development.

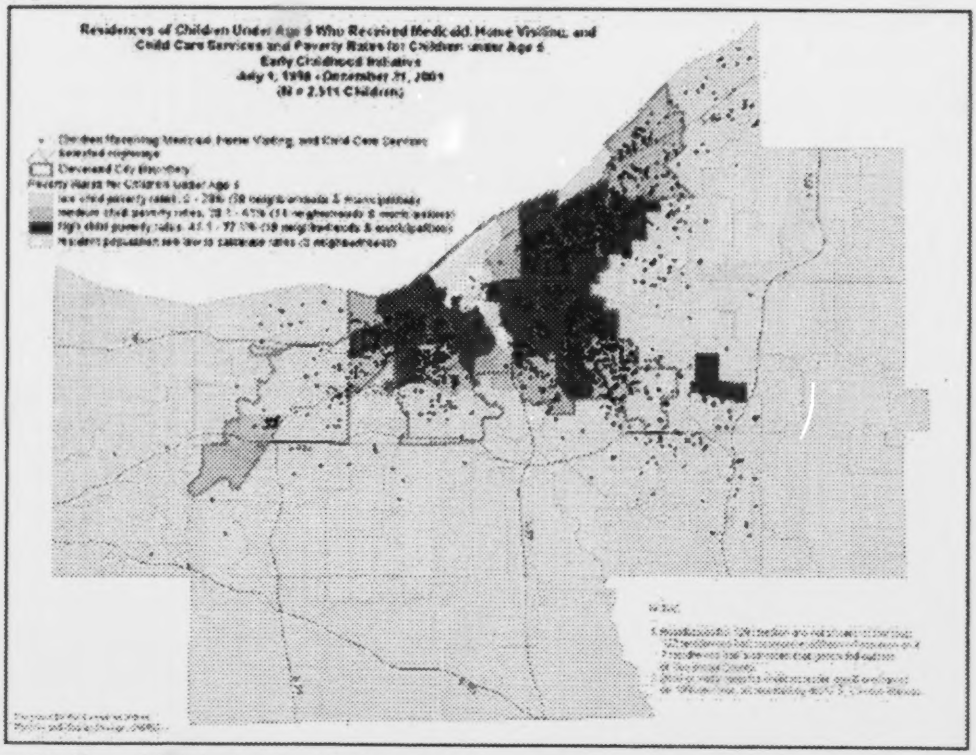
Residences of Children Under Age 6 Who Received Medicaid, Home Visiting, and
Child Care Services and Poverty Rates for Children under Age 6
Early Childhood Initiative
July 1, 1998 - December 31, 2001
(N = 2,511 Children)
Cleveland City Boundary
Poverty Rates for Children under Age 6

Figure 3.6 Map of Children Using All Three ECI Components by Poverty Level of Neighborhood

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[5] Approximately half of the births in Cuyahoga County are in Cleveland and the other half in various suburbs.

Conclusions

The ECI has clearly achieved a very large scale and is now reaching approximately 70% of the births in the County. Nearly 83,000 children from birth through their fifth year of age have been served since its inception and these children reside throughout the County, in the City of Cleveland and in most of the suburbs. In this sense, the ECI is universal and has the potential to represent a system of support for young children and their families. Now that the ECI has attained the scope where it is touching the majority of young lives, it raises the question of what else can be achieved through this structure. Are there families that are currently outside its scope that have needs that have not yet been addressed by the ECI? Are there additional types of information or programs that would benefit the families who up until now have received only a single visit or service? Can this very large group of families reached by ECI be mobilized as a constituency for early childhood or as advocates for more resources to support this age group?

Also, as anticipated, there is a smaller group of families that are served by multiple components of ECI. Many of these families appear to be facing the economic and personal hardships of poverty. They also tend to rely on other public systems. In this sense, ECI seems to be targeting high-risk children and families and has the potential to prevent negative developmental outcomes that are known to occur at high rates in the absence of intervention. Moreover, this pattern of overlapping services going to at-risk families is suggestive of a system that has become more accessible. However, it also points to the importance of these agencies and service providers building upon the work of one another to assure that families with complex needs can manage their multiple agency relationships and that duplication does not occur.

The answers to these remaining questions will point to avenues for refining the Early Childhood Initiative as a universal system for promoting healthy children, effective parents and quality child care. Yet it is already evident that ECI has built a foundation to reach nearly the entire early childhood population and to provide intensive support to children and families with the greatest needs. This combination of breadth along with depth is a message that should be articulated to the public to assure new parents that their community values very young children and stands ready to assist them during this vital stage of development.

Chapter 4
Welcome Home and Early Start: An Assessment of Program Quality and Outcomes

Deborah Daro, Eboni Howard, Jennifer Tobin, and Allen Harden

Chapter Summary

As part of the overall ECI evaluation, Chapin Hall Center for Children at the University of Chicago, in collaboration with Westat Associates, designed and implemented a comprehensive evaluation of the initiative's two home visitation programs – Welcome Home and Early start. ECI uses universal home visitation (Welcome Home) to provide a common reference point and core set of information for all first time and teen parents. Early Start serves those new parents in need of ongoing support due to a lack of sufficient parenting knowledge and self-management skills or who face environmental challenges.

The evaluation documented the characteristics and experiences of 289 new mothers who received only Welcome Home; 325 new mothers who received Welcome Home and were referred on to Early Start by the Welcome Home nurse; and 193 pregnant women or new mothers referred to Early Start by their Ohio Works First (OWF) caseworker. Interviews were conducted with participants at the time of referral and 3 and 11-month post-enrollment. Data available for this report include initial and 3-month interviews for our full participant sample and 11-month interviews for approximately half of the sample; the service experiences of Early Start recipients as reported by their home visitors over the initial nine-month enrollment period; child abuse reports among our sample for the first 3 to 6 months following study enrollment; and the service experiences of all Welcome Home and Early Start participants referred for services between July 1999 and March 2002. Specific trends highlighted include:

- Three-months after receiving the visit, Welcome Home participants remember the information provided by the nurse and report using the information in caring for their infants. Participants are significantly less likely to have found the visits useful in addressing their own health needs or connecting them to other new parents.
- Newborns and their parents are being provided ongoing home visitation services much earlier in the infant's life than had been true in 1999. The average infant who is referred prior to her 6-month birthday or when her mother is pregnant will receive an initial home visit within the first month of life.
- Early Start referrals who present the highest level of risk, as measured by the Child Abuse Potential Inventory, are twice as likely to receive an initial home visit and engage in the program as those with the lowest CAP scores. However, about one-third of all referrals never receive a home visit.
- Once engaged in the program, virtually all Early Start participants (94%) remain enrolled at least three months and three-quarters remain in the program at least six months. Over our nine-month observation period, Early Start participants received at average of 11.3 visits, or approximately 50 percent of the number of visits that should have been provided if the model had been delivered as designed.
- Our data suggest a greater number of Early Start services have modest predictive ability in explaining a participant's reduced risk for physical abuse and increased sense of competence and comfort in caring for her child.

Introduction

Home Visitation Programs for New Parents:

An increasingly important component of an effective system to promote healthy child development is the provision of home-based services at the time child is born or a woman is pregnant. Such early intervention efforts have been found to produce significant and substantial impacts on parenting behavior and child health and well-being (Daro, 1993; Guterman, 1997; Infant Health and Development Program, 1990; Karoly et al., 1998; Ramey & Ramey, 1998; Seitz, Rosenbaum, & Apfel, 1985). Home visitation has been cited by several policy analysts and advocates as offering a particularly promising service delivery approach for educating parents and reducing abuse potential (General Accounting Office [GAO], 1990; U.S. Advisory Board on Child Abuse and Neglect, 1990, 1991, 1993; Zero to Three, 1999). Offering services in a parent's home has a number of distinct advantages, particularly if the objective is to reduce the likelihood of maltreatment. Such services offer the provider an excellent opportunity to assess the safety of the child's living environment and to work with the mother in a very concrete way to improve parent-child interactions. The method also affords the participant a degree of privacy and the practitioner a degree of flexibility difficult to achieve in center-based programs.

In addition to the strong theoretical and clinical evidence supporting home visitation strategies, empirical evidence suggests this strategy can achieve initial and lasting impacts on parental behavior, particularly with young single mothers. The work of David Olds, Harriet Kitzman and their colleagues suggest that repeated home visits initiated during pregnancy has both initial impacts on abuse potential and maternal health behavior (Kitzman, et al., 1997; Olds, Henderson, Chamberlin, Tatelbaum, 1986), as well as long-term impacts on the child's development (Olds, et al., 1997, 1998). Other home visitation research also has suggested that these efforts, when delivered in a preventive as well as treatment context, can produce positive outcomes for at least a subgroup of program participants (Daro & Harding, 1999; Gray, Cutler, Dean, & Kempe, 1979; Heinicke, et al., 1998; Larner, 1992; Larson, 1980; Lutzker & Rice, 1984, 1987; Lutzker, 1998; Olds & Kitzman, 1993).

Positive outcomes, however, are neither universal nor consistent, leading some to rethink the utility of this approach (Abt Associates, 1997; Barnard, 1998; Gomby, Culross, & Behrman, 1999). Although this lack of consistency might indicate real program failure, it also underscores the inevitable limitation of any single intervention, no matter how well designed and delivered. Additional analysis of this method is needed to better articulate the unique role of home visitation within the context of a broad, diversified system of parent education and support.

Home Visitation in The Context of ECI:

The Early Childhood Initiative includes two specific home visitation strategies: Welcome Home and Early Start. Both are part of the Ohio Department of Health's Help Me Grow Initiative. Help Me Grow is a coordinated early childhood program of home visits for newborns and information and service coordination for parents and young children under 3 years of age. Current birth to three programs that are included in Help Me Grow are Welcome Home, Early Start, and Early Intervention. The Help Me Grow Collaborative of Cuyahoga County is an organization of families and providers committed to ensuring that all families with young children have access to the supports and services their children need to reach their fullest potential. The collaborative oversees the Help Me Grow birth to three programs and provides leadership in the community to ensure a seamless system of service delivery for children prenatal through five and their families.

The first program, Welcome Home, offers a single in-home visit by a registered nurse to first-time and teen parents. In addition, parents at "social risk" (e.g., those with prior multiple abortions or miscarriages, adoptive parents, or parents with prior loss of children to foster care) also are offered a Welcome Home visit. A hospital nurse on the post partum floor or a Welcome Home Specialist (i.e., a bachelor-prepared professional in nursing, social work, or other appropriate field) offers the service in the hospital to eligible mothers after they have delivered. In addition to introducing the service, staff will offer the family the option of receiving the "Growing Together" newsletter, a bi-monthly publication that covers developmental milestones and parenting concerns common during a baby's first years. The publication continues on a quarterly basis until the child's third birthday. If services are accepted, the mother's consent form and contact information are then forwarded to the Welcome Home nurse visitor who arranges for the visit to occur within the next 2-weeks.

The logic model for Welcome Home is presented in Figure 4.1. As this model indicates, this visit includes a medical examination of the mother and infant to identify any potential medical emergencies; the provision of general information regarding infant health and development and expectations during the postpartum period; a general assessment of the family's overall capacity and needs to care for their infant; and, if appropriate, referral on to additional services. The objectives of this program are to provide all first-time and teen parents with a core set of information regarding child development and infant care, to insure that infants have access to ongoing, preventive medical care, and to refer families on to additional services if necessary. These additional services might include continued home visitation programs or other family support services, more extensive developmental screening or intensive services for infants with developmental delays or at risk of such delays, or therapeutic services for parents presenting various emotional or socio-economic difficulties.

In contrast to Welcome Home, ECI's second home visitation program, Early Start, offers extended home visits to parents of infants and toddlers (0 to 3) who face significant risk of child maltreatment or future developmental delays. Families are referred to this program though a variety of channels including Welcome Home, the Ohio Works First (welfare reform) Program, the department of children and family services, medical facilities and other community-based agencies. In addition, Early Start accepts self-referrals as well referrals from other family members or friends. All referrals are coordinated through a single intake unit (i.e., Interlink-Help Me Grow) that refers the family on to one of twenty-nine contracted community-based agencies. In making these referrals, the Interlink staff strives to enroll families with Early Start agencies that either are located in their family's community or have the capacity to meet the family's unique service needs (e.g., such as substance abuse, domestic violence, mental illness, homelessness, etc). Early Start home visitors include both trained professionals (e.g., nurses, social workers or child development specialists) and para-professionals. Services are offered weekly for at least the first 3 to 6 months following enrollment. Home visits are then offered on a bi-weekly, monthly or bi-monthly basis until the child reaches 3 years of age, with the specific dosage depending upon the family's level of need.

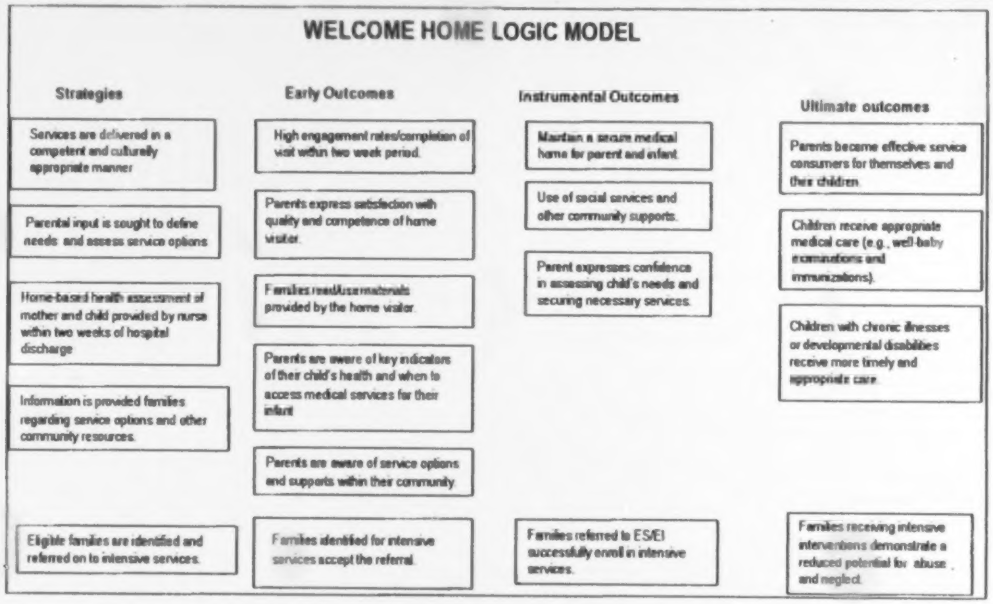
WELCOME HOME LOGIC MODEL
Strategies
Early Outcomes
Instrumental Outcomes
Ultimate outcomes
Services are delivered in a competent and culturally appropriate manner
Parental input is sought to define needs and assess service options
Home-based health assessment of mother and child provided by nurse within two weeks of hospital discharge
Information is provided families regarding service options and other community resources.
Eligible families are identified and referred on to intensive services.
High engagement rates/completion of visit within two week period.
Parents express satisfaction with quality and competence of home visitor.
Families read/use materials provided by the home visitor.
Parents are aware of key indicators of their child's health and when to access medical services for their infant
Parents are aware of service options and supports within their community.
Families identified for intensive services accept the referral.
Maintain a secure medical home for parent and infant.
Use of social services and other community supports.
Parent expresses confidence in assessing child's needs and securing necessary services.
Families referred to ES/EI successfully enroll in intensive services.
Parents become effective service consumers for themselves and their children.
Children receive appropriate medical care (e.g., well-baby examinations and immunizations).
Children with chronic illnesses or developmental disabilities receive more timely and appropriate care.
Families receiving intensive interventions demonstrate a reduced potential for abuse and neglect.

Figure 4.1 Welcome Home Logic Model

The Early Start logic model is summarized in Figure 4.2. Key features of these home visits include initial and periodic assessment of the home environment (using the HOME Inventory); developmental screening of the child (using the Ages and Stages Questionnaire or the Denver Developmental Screening Test II); and nutrition screening. Early in the service relationship, the home visitor and family jointly develop an Individualized Family Service Plan (IFSP) to guide the ongoing service relationship. Although the specific issues and service referrals provided to families through the home visits will vary depending upon their specific IFSP goals, all families are exposed to a core set of topics outlined in the Early Start service curriculum. These core topics include parenting skills and information, child and maternal nutrition, health care, self-care, and self-sufficiency. In addition to the information and support provided directly by the home visitor, program recipients are often referred on to additional therapeutic or support services. Indeed, linking families to other community services is a key Early Start objective.

Sustained engagement in services, coupled with ongoing assessments of the child's developmental progress and the family's use of critical service referrals, is thought to reduce child abuse potential and actual incidence, increase the effective use of community-based health and social services, and increase the ability of parents (particularly the child's mother) to make positive life course choices (e.g., continued education, employment, self-sufficiency, etc).

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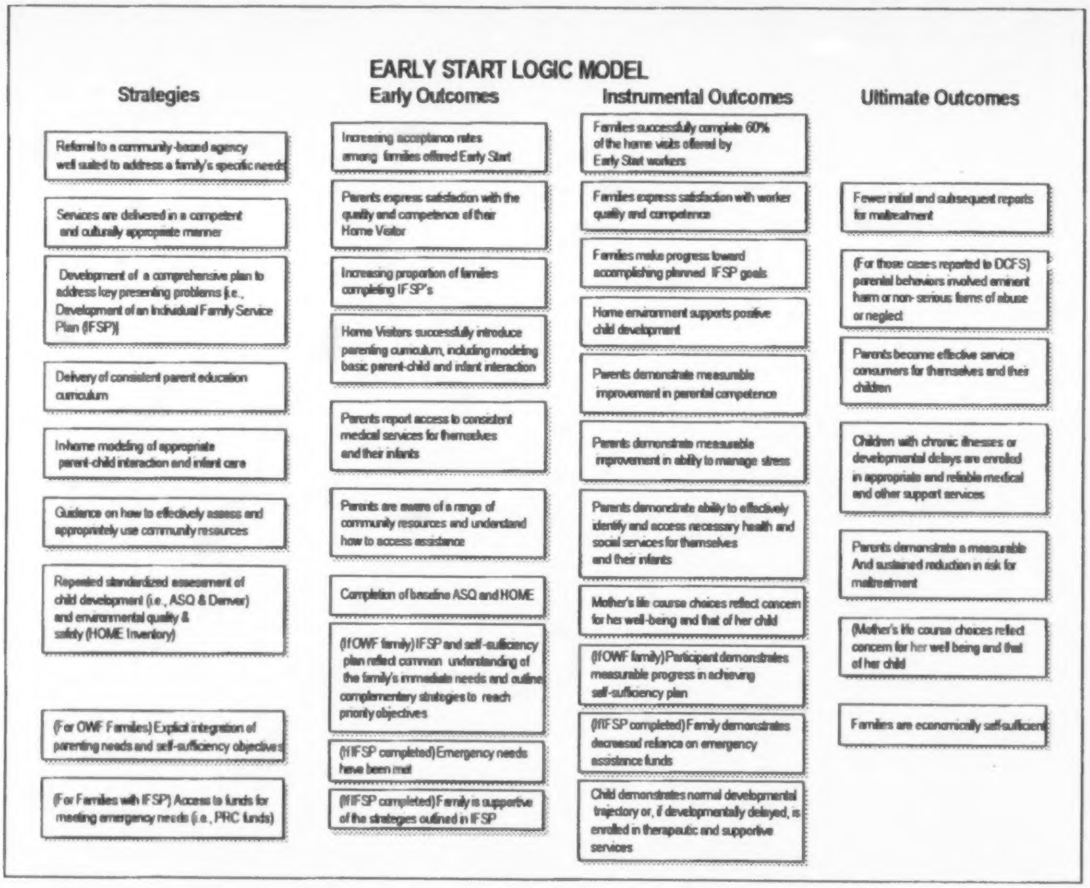

EARLY START LOGIC MODEL

Strategies

- Referral to a community-based agency well suited to address a family's specific needs
- Services are delivered in a competent and culturally appropriate manner
- Development of a comprehensive plan to address key presenting problems (i.e., Development of an Individual Family Service Plan (IFSP))
- Delivery of consistent parent education curriculum
- In-home modeling of appropriate parent-child interaction and infant care
- Guidance on how to effectively assess and appropriately use community resources
- Repeated standardized assessment of child development (i.e., ASQ & Denver) and environmental quality & safety (HOME Inventory)
- (For OWF Families) Explicit integration of parenting needs and self-sufficiency objectives
- (For Families with IFSP) Access to funds for meeting emergency needs (i.e., PRC funds)

Early Outcomes

- Increasing acceptance rates among families offered Early Start
- Parents express satisfaction with the quality and competence of their Home Visitor
- Increasing proportion of families completing IFSP's
- Home Visitors successfully introduce parenting curriculum, including modeling basic parent-child and infant interaction
- Parents report access to consistent medical services for themselves and their infants
- Parents are aware of a range of community resources and understand how to access assistance
- Completion of baseline ASQ and HOME
- (If OWF family) IFSP and self-sufficiency plan reflect common understanding of the family's immediate needs and outline complementary strategies to reach priority objectives
- (If IFSP completed) Emergency needs have been met
- (If IFSP completed) Family is supportive of the strategies outlined in IFSP

Instrumental Outcomes

- Families successfully complete 60% of the home visits offered by Early Start workers
- Families express satisfaction with worker quality and competence
- Families make progress toward accomplishing planned IFSP goals
- Home environment supports positive child development
- Parents demonstrate measurable improvement in parental competence
- Parents demonstrate measurable improvement in ability to manage stress
- Parents demonstrate ability to effectively identify and access necessary health and social services for themselves and their infants
- Mother's life course choices reflect concern for her well-being and that of her child
- (If OWF family) Participant demonstrates measurable progress in achieving self-sufficiency plan
- (If IFSP completed) Family demonstrates decreased reliance on emergency assistance funds
- Child demonstrates normal developmental trajectory or, if developmentally delayed, is enrolled in therapeutic and supportive services

Ultimate Outcomes

- Fewer initial and subsequent reports for maltreatment
- (For those cases reported to DCFS) parental behaviors involved eminent harm or non-serious forms of abuse or neglect
- Parents become effective service consumers for themselves and their children
- Children with chronic illnesses or developmental delays are enrolled in appropriate and reliable medical and other support services
- Parents demonstrate a measurable And sustained reduction in risk for maltreatment
- (Mother's life course choices reflect concern for her well being and that of her child
- Families are economically self-sufficient

Figure 4.2 Early Start Logic Model

The use of a dual home visitation strategy within the context of the Cuyahoga County Early Childhood Initiative offers a unique and important opportunity to test a number of the assumptions regarding how best to deliver this important prevention strategy. The following are key features of this specific initiative:

- **A universal system of outreach and service provision:** In contrast to most child abuse prevention efforts, the initiative's Welcome Home component implements a universal system of home visitation to all first-time and teen parents. Many in the field have considered this type of broad outreach to be a prerequisite to establishing the normative conditions necessary for embedding support for new parents into the social fabric. Tracking the degree to which families accept these services and use them as a gateway to other formal and informal supports would greatly advance the ability to take prevention efforts "to scale".
- **Multiple pathways to intensive home visitation:** Unlike many of the other major prevention models, this initiative does not limit enrollment to a one-time offer of service

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at the time a child is born. This initiative uses a wide range of agencies to channel families into Early Start (e.g., the Welcome Home staff, DCFS, Ohio Works First, WIC, etc). As a result, this study offers the field a unique opportunity to gauge the potential of these existing systems to adequately reach a sizable proportion of the most challenged families.

- **A collaborative structure in which a new entity has been developed to coordinate services:** The fact that a single, new entity receives and processes referrals to Early Start is a promising addition to improving coordination among existing agencies with diverse missions. Theoretically, this approach should allow for a more objective determination of a family's needs and better matching between needs and services. The variety of agencies assigned the task of offering home visitation services allows one to document the degree to which families are indeed referred to services based upon individualized needs.
- **Specialized services for families facing particular challenges such as substance abuse, mental health issues, or homelessness:** A key question facing prevention planners across the country is the degree to which early intervention can be successful with the most challenging populations. Although most intensive home visitation and other prevention programs claim to focus on families facing significant risk, initial screening into these programs often excludes families from services when they present a serious mental health problem, active substance abuse, domestic violence, or homelessness. The Early Start structure will allow for a more in-depth examination of how well these types of high-risk families can be served and the unique benefits of housing early intervention efforts within service agencies specifically designed to address complex problems.

Evaluation Design

The Welcome Home/Early Start evaluation plan is designed to document the extent to which both programs are consistently implemented and the degree to which each achieves their stated objectives. Although the study's 2-year time frame limits the ability to document, with any certainty, the extent to which these home visitation efforts produce lasting and meaningful change for program participants, this time frame is sufficient for addressing questions of program quality and fidelity. The evaluation time frame also provides an opportunity to document the initial impacts these services have on parental attitudes, behaviors, and capacity to access the supports necessary for meeting their parental obligations. The evaluation included five core components:

- An initial assessment of participant satisfaction of a sample of both Welcome Home and Early Start program recipients
- An assessment of program impacts on participants at 3-months and 11-months post-enrollment for a sample of Welcome Home and Early Start program recipients
- An analysis of participant (engagement) and retention in Early Start services that examines the different characteristics of families who move through the various stages of engagement (e.g., initial acceptance of an Early Start referral and initial home visit, retention in the program for at least 6 months, and retention in the program for at least 9 months)

- An assessment of subsequent reports for child abuse and neglect for a sample of Early Start program recipients based on a review of CPS administrative records
- An assessment of the quality and consistency of Early Start services delivered by different community-based agencies

Participant Sample Selection Methods:

Our assessment procedures involved an examination of the full universe of Welcome Home and Early Start participants, as captured by the county's administrative data system, and all Welcome Home and Early Start home visitors and supervisors, as captured through a self-assessment instrument staff completed as part of our initial training. Although these data provide a general summary of each program's service capacity and overall structure, they do not provide much detail about each program's participant population, service impacts, or program quality. To capture these dimensions, we identified a sample of new parents drawn from the general population of Welcome Home recipients and from those Early Start participants referred for service through either Welcome Home or Ohio Works First.

One of the key challenges in assessing the efficacy of any intervention is the ability to compare participant performance to that of a control or comparison group. This issue is particularly critical in situations where it is not possible to implement a formal, randomized trial. To compensate for the inability to randomly assign participants to treatment and control conditions, we considered a variety of options, including comparing the performance of those fully engaging in Early Start to those who either refused or dropped out of services. To improve the accuracy of this comparison, we planned to statistically control for any observed differences that existed between the two groups prior to comparing performance on any specific outcome measure.

A possible limitation to this approach is the fact that key, unobservable differences such as self-motivation and willingness to change might well exist between those remaining in services and those refusing or leaving services early. Failure to account for these differences may attribute greater value to the observable, demographic differences (e.g., single-parent status, degree of poverty, race, etc.) than is warranted. In order to better estimate differences in personal capacity not easily observed, we selected a comparison or non-service group from among those Welcome Home recipients who were not referred on to Early Start but who exhibited a similar level of risk as measured by a standardized assessment measure. Although a greater proportion of new parents with the greatest level of difficulty, by definition, would be referred to Early Start, our prior evaluations of similar assessment and referral systems suggested that as many as one-third of new parents assessed as having few or no difficulties at the time they give birth, faced serious parenting struggles during their child's first year of life (Daro, 2000; Guterman, 1997). This suggested that we would be able to identify a suitable comparison sample from among those not referred to Early Start by the Welcome Home nurse.

To identify the most appropriate comparison group, Welcome Home nurses enrolled a total of 981 new parents not referred on to Early Start as potential participants in our comparison group. These women were administered the Child Abuse Potential Inventory (CAP), a tool widely used in identifying a respondent's relative risk of being involved in physical child abuse and, to a lesser extent, physical neglect. The instrument's ability to correctly classify physically abusive and comparison parents has been documented in numerous clinical and controlled settings (Milner, 1994). The seventy-seven-item abuse scale contains six descriptive factor scales: distress, rigidity, unhappiness, problems with child and self, problems with family, and problems with others. Respondents with elevated abuse scores have an array of personal and interpersonal characteristics that are similar to characteristics found in identified physical child abusers. Taken together, the personal and interpersonal characteristics that are related to elevated CAP abuse scores are characteristics associated with problems in parent-child interactions and are risk factors that increase the likelihood for both concurrent and future physical abuse. As such, those individuals presenting comparable CAP scores are considered to be at comparable risk for physical child abuse.

The Welcome Home only participants recruited for the study had CAP scores ranging from 0 to 302, with a mean score of 42 (*SD* = 44). The final comparison sample was selected from this pool in multiple waves, corresponding to the pace at which the nurses were enrolling Early Start referrals. To the extent possible, participants were matched on CAP scores. As summarized in Figure 4.3, our selection method was successful in obtaining at least a proportion of participants in the comparison group that presented risk levels comparable to those within the Early Start referral group as well as to those study participants enrolled through Ohio Works First (OWF).

On balance, however, our assumption that the assessment process would fail to detect a notable number of mothers at risk for physical abuse was not supported. Although the Welcome Home nurses failed to detect all mothers with very elevated CAP scores, such omissions were rare. Consequently, we are less confident that our sample of Welcome Home only recipients is an appropriate comparison group for those referred on to Early Start. As such, this report focuses more on examining change over time among various subgroups within the Early Start referral sample (e.g., those with different levels of SES and psycho-social risk) rather than comparing changes between Early Start participants and the Welcome Home only group.

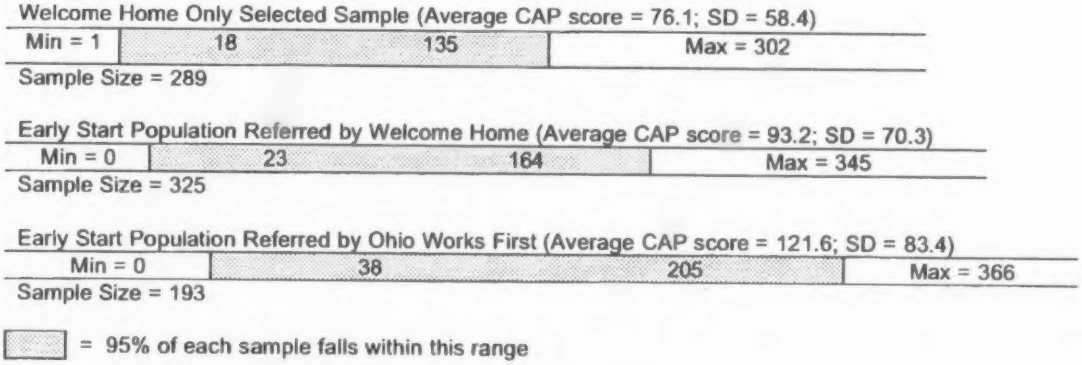
Welcome Home Only Selected Sample (Average CAP score = 76.1; SD = 58.4)
Min = 1
18
135
Max = 302
Sample Size = 289
Early Start Population Referred by Welcome Home (Average CAP score = 93.2; SD = 70.3)
Min = 0
23
164
Max = 345
Sample Size = 325
Early Start Population Referred by Ohio Works First (Average CAP score = 121.6; SD = 83.4)
Min = 0
38
205
Max = 366
Sample Size = 193
▨ = 95% of each sample falls within this range

Figure 4.3 Comparison of CAP Scores at Intake

Data Collection Instruments:

The evaluation incorporated a variety of data collection instruments and strategies such as self-administered questionnaires, personal interviews, case record reviews and analysis of county level administrative data. The participant interview protocols used at intake included basic descriptive information on the participant and her family (e.g., age, race, income, educational status, employment status, and household composition) and questions regarding the mother's satisfaction with Welcome Home. The protocols used at the initial and 11-month follow-up interview included a series of questions regarding the mother's expectations regarding Early Start or community programs and concerns she had as a new parent. In addition, the form included versions of various standardized measures designed to address multiple constructs associated with parental capacity or personal functioning.[1] These measures included:

- Knowledge of Infant Development (KIDI) (MacPhee, 1981) – a seventeen-item measure designed to assess knowledge of infant care, development and behavior
- Social Support Behaviors Scale (SSB) (Vaux, Riedel, & Steward, 1987) – a forty-four-item measure assessing the extent to which the respondent receives support in five domains (emotional, socializing, practical, financial and advice or guidance)
- Social Support Index (SSI) (McCubbin, Patterson, & Glynn, 1996) – a sixteen-item measure capturing the degree to which the respondent feels emotionally connected to and support by family members and neighbors
- Parenting Sense of Competence Scale (PSOC) (Gibaud-Wallston & Wandersman, 1976, 1978) – a seventeen-item measure to assess attitudes about parenting and confidence in parenting ability
- Perceived Stress Scale (PSS) (Cohen & Williamson, 1988) – a ten-item measure to assess an individual's perceptions of the degree and source of current stress in her life
- Center for Epidemiologic Studies-Depressed Mood Scale (CES-D) (Radloff, 1977) – a twenty-item measure of depressive symptomatology
- Readiness to Change, a revised version of the Stages of Change (URICA) Inventory (McConnaughy, Prochaska, & Velicer, 1983) – a sixteen-item measure assessing the extent to which the respondent perceives a need to alter behavior to improve parental capacity and believes service enrollment can help achieve this objective
- At the 11-month interview, the second completion of the CAP inventory

In contrast to these more comprehensive interviews, the 3-month telephone interview obtained a summary of services the new parent utilized for herself or her infant since the first interview. Participants who received a Welcome Home visit were asked about their specific use of material provided during the Welcome Home visit and completed the Client Experiences Questionnaire, Subscale A, a standardized measure of service satisfaction (Greenley, Greenberg, & Brown, 1997). If the respondent was enrolled in Early Start services, the interviewer explored her perception of services and administered the Helping Relationship Inventory, a standardized assessment of the quality of the participant-provider relationship (Poulin & Young, 1997; Young & Poulin, 1998). Although Chapin Hall research staff developed all data collection instruments,

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[1] Minor modifications to some of these measures were made to better reflect the context of this study.

Westat Associates hired, trained, and supervised research staff who conducted all in-person and telephone interviews with study participants.

Additional information on the Early Start service experiences for those families in our sample was obtained through quarterly reports completed by each family's home visitor. These forms, completed every 3 months while parents participated in Early Start services, asked the worker to summarize the presence or absence of key problems or concerns for the family; the parent's IFSP status; the parent's service profile (e.g., number of attempted and provided home visits, all telephone contact and other direct services, service referrals, etc.); an assessment of the family's progress and level of engagement; and completion of the staff version of the Helping Relationship Inventory. If the parent left services during that quarter, the home visitor was asked to document the date services ended and the reason the parent left the program.

At the onset of the study, we also collected a self-administered assessment form from all Welcome Home and Early Start direct service personnel and supervisors. This assessment form included basic descriptive information (e.g., age, race, educational status, etc); employment history; in-service training opportunities; satisfaction with the overall structure and management of the program; and an assessment measure of their service delivery style developed by the research team. This thirty-two-item experimental measure captures two dimensions of service delivery style: the structure of home visitation services (flexible versus structured) and the quality of the service delivery relationship (self-revealing versus distant). Copies of all data collection instruments used in this study are available from Chapin Hall Center for Children.

Analytic Techniques:

A series of bivariate and multivariate analytic techniques were applied to both the survey and administrative data to describe the sample population, initial service satisfaction and identify the extent to which specific individual, provider and program characteristics accounted for the initial variation in the number of months enrolled in the program and the number of home visits received. While limited by sample size, these techniques also were used to identify possible Early Start program effects at 11-months post enrollment, including the rate at which our sample families experienced a report of child abuse and neglect following enrollment in our study.

With respect to participant enrollment, we applied three multivariate techniques. First, we employed logistic regression to identify the set of factors that best explained differences between those who never receive a visit (or never engaged) versus those who receive at least one home visits. Second, we examined program retention using survival analysis, to more accurately specify the rate at which those receiving at least an initial visit left services. Finally, we used standard OLS multiple regression to identify the set of factors that best explained differences in the number of home visits provided to those who formally "enrolled" in Early Start (i.e., received at least one home visit). This approach allowed us to partial out that proportion of the variance in service dosage attributed to the demographic characteristics and needs participants bring to the service process from the proportion of variance explained by the initial relationship the participant establishes with her home visitor.

As noted earlier, 11-month assessment data included in this report reflect the performance of about half of the sample. Although this limited our ability to fully explore the reasons behind any observed changes in our outcome measures, the sample was sufficient to offer some preliminary insights into the relative difference in personal functioning and parental capacity experienced by those who received different levels of service. For purposes of these analyses, our outcome variables included changes in various standardized measures included in our interviews; changes in the number of parental concerns and challenges noted by respondents; and information from various administrative data systems regarding subsequent reports for child maltreatment and the outcome of these reports.

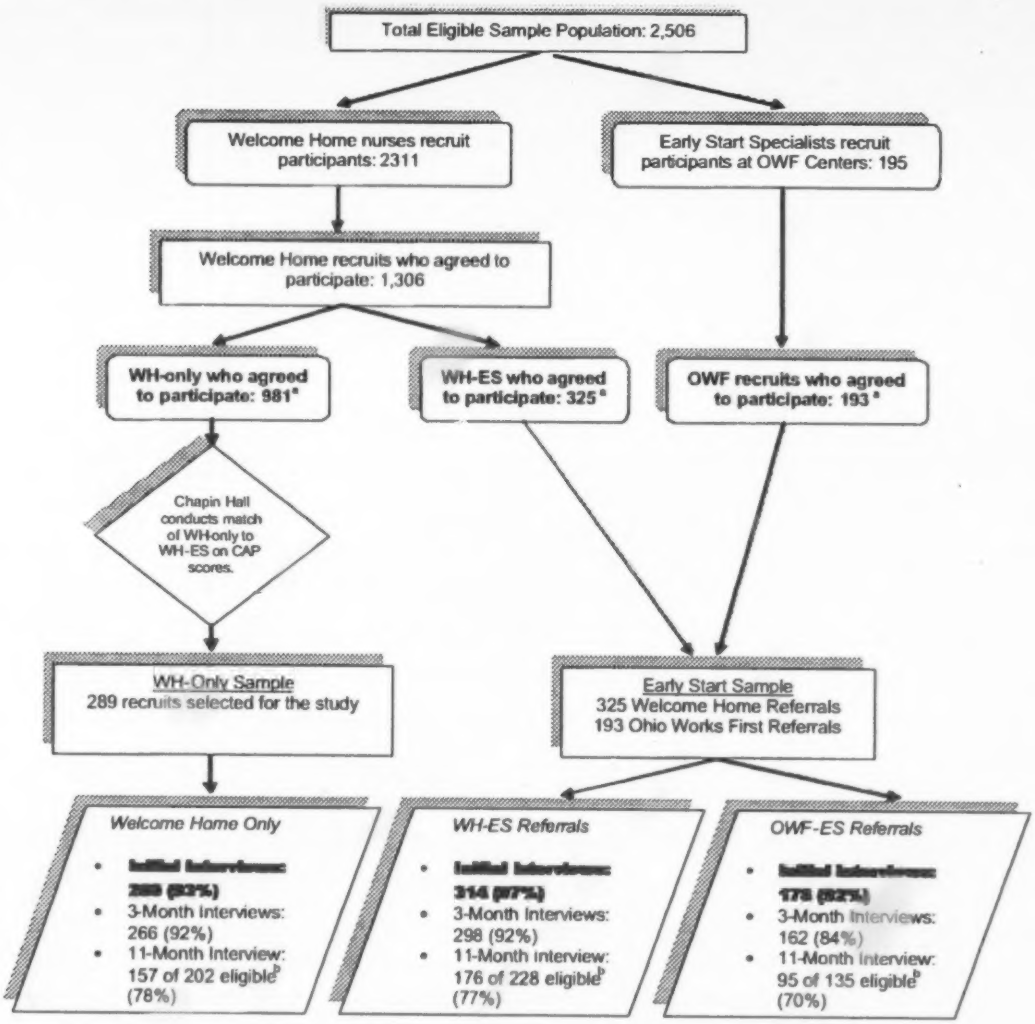
For those outcome areas in which we detected significant change, multiple regression techniques were used on all those who referred to an Early Start service provider, regardless of referral source or actual receipt of a home visits to better specify the personal or service characteristics that might explain these changes. In selecting variables for these models, we employed cross tabulations and t-tests to assess the correlations between key variables in order to identify interaction terms and to explore the relationships among various "risk" or "protective" factors. In structuring the regressions, we first entered those individual characteristics that might be associated with differential outcomes (i.e., SES risk markers), then entered "referral source" (i.e., Welcome Home versus OWF), and then entered service level.

Participant Sample Enrollment and Retention

Participants were recruited into the study through two sources – the Welcome Home nurse and the Early Start Specialists working with families involved in Ohio Works First (OWF). Figure 4.4 summarizes the flow of families into the sample from these two sources. A total of 2,506 eligible participants were offered recruitment into the study. Of these families, the Welcome Home nurse recruited 2,311 and the Early Start specialists recruited 195 participants. Of these participants, 1,509 accepted enrollment in the study -- 981 of the Welcome Home only group (53% acceptance rate); 325 of the Early Start-Welcome Home referrals (69% acceptance rate); and 193 of the Early Start-OWF referrals (99% acceptance rate).

Although every effort was made to fully document all cases in which a new parent was offered enrollment in the study, actual acceptance rates might vary from these estimates. For example, it is often unclear in the refusal data whether participants accepted the Early Start referral, but refused study participation or whether they refused the Early Start referral and therefore were ineligible for the study and should not have been offered enrollment. Similarly, some of those offered enrollment did not meet the study's criteria and, therefore, should not have been included in the potential sample (e.g., were under the age of 16). In addition, it cannot be confirmed that nurses or the Early Start specialists always documented and returned refusal forms in a consistent and accurate manner. This pattern may account for the apparent high acceptance rate among the OWF service population. On the other hand, the OWF population may have felt more obligated to participate in the study or more attracted to the study by the offer of a tangible benefit (i.e., a $25 gift certificate). Appendix 4.1 provides a more detailed breakdown on the refusal rates that we observed across individual hospitals.

As summarized in Figure 4.4, Westat field staff conducted initial interviews with over 90 percent of those who accepted and were enrolled in the study. Of the initial sample, over 90 percent of the Welcome Home only and Welcome Home-Early Start referrals completed the 3-month assessment. Although a slightly lower proportion of the OWF-Early Start referrals


Total Eligible Sample Population: 2,506
Welcome Home nurses recruit participants: 2311
Early Start Specialists recruit participants at OWF Centers: 195
Welcome Home recruits who agreed to participate: 1,306
WH-only who agreed to participate: 981[a]
WH-ES who agreed to participate: 325[a]
OWF recruits who agreed to participate: 193[a]
Chapin Hall conducts match of WH-only to WH-ES on CAP scores.
WH-Only Sample
289 recruits selected for the study
Early Start Sample
325 Welcome Home Referrals
193 Ohio Works First Referrals
Welcome Home Only
Initial Interviews: [illegible] (93%)
3-Month Interviews: 266 (92%)
11-Month Interview: 157 of 202 eligible[b] (78%)
WH-ES Referrals
Initial Interviews: 314 (97%)
3-Month Interviews: 298 (92%)
11-Month interview: 176 of 228 eligible[b] (77%)
OWF-ES Referrals
Initial Interviews: 178 (92%)
3-Month Interviews: 162 (84%)
11-Month Interview: 95 of 135 eligible[b] (70%)

Note: [a]There are several issues that raise questions regarding the validity of the refusal data. See Appendix 4.2B.

[b]The remaining participants in each sample had not yet reached the 11-month past enrollment point and therefore were not available for the report.

Figure 4.4 Overview of the Sample Enrollment, Selection Process, and Survey Data

completed the 3-month assessment, the completion rate for this group is well within the acceptable response rates for comparable studies (i.e., 84%). Approximately 70 percent of our original sample reached their eligibility for the 11-month interview in time to be included in this report. Of these families, between 70 and 78 percent successfully completed the 11-month interview. Although this completion rate is lower than had been achieved in the two previous data collection waves, it is sufficiently robust to maintain sample integrity. In addition, the final completion rate for the 11-month interviews may exceed this percentage once the full sample has been offered the opportunity to complete this interview.[2]

For those study participants referred on to an Early Start agency, we also obtained regular reports on their service experiences from their home visitor. Figure 4.5 summarizes the number and timing of the quarterly service updates we received for Early Start referrals who completed a baseline interview. As this figure indicates, initial quarterly reports were received on over 97 percent of all of these Early Start referrals. For those who remained enrolled it the program, additional quarterly reports were obtained at 6-months and 9-months post-enrollment.

In addition to maintaining high retention rates, the interview schedule and provider quarterly reports were completed within a comparable time frame for all study participants, thereby avoiding any potential bias that might be introduced by respondents having dramatically different lengths of time between interviews or referring to infants that differ markedly in age.

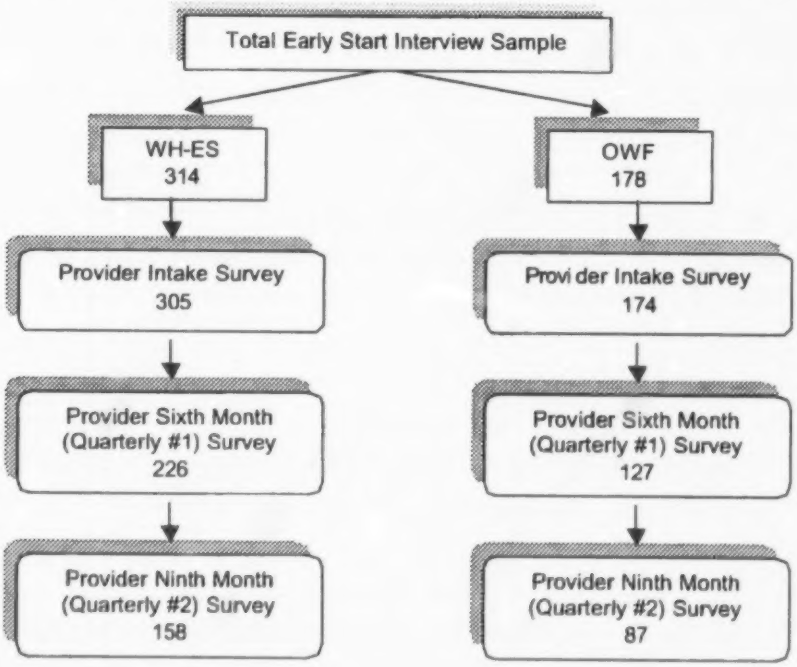

Total Early Start Interview Sample
WH-ES
314
OWF
178
Provider Intake Survey
305
Provider Intake Survey
174
Provider Sixth Month
(Quarterly #1) Survey
226
Provider Sixth Month
(Quarterly #1) Survey
127
Provider Ninth Month
(Quarterly #2) Survey
158
Provider Ninth Month
(Quarterly #2) Survey
87

Figure 4.5 Overview of Data Submitted by Early Start Providers

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[2] The Final Report, including data from the full sample, will be available in early 2003.

In this study, initial interviews were completed within the first month of enrollment in the case of the WH-ES sample and within 2 months for the other two samples. For all three groups, the mean interval for both the 3 and 11-month interviews occurred within the target month. Similarly, the Early Start provider quarterly assessment forms were, on average, submitted every 3 months as designed. This consistency in data collection also is reflected in the comparability of the infant's mean age at all three data collection points. Although slight differences existed in the age of the infant at the time the mother was first enrolled in the study (i.e., a proportion of referrals from OWF caseworkers involved women who were pregnant), the initial interviews were conducted with participants in all three groups when the infants were between 1 and 2 months of age. This similarity in mean age was retained across the three groups throughout the data collection period. At the time of the 3-month interviews, the infants were, on average, close to 5 months in age, and at the 11-month interview were between 12 and 13 months old.

Comparability of Sample to the Early Start Population

An important step in the evaluation process is determining the extent to which the sample of program participants is representative of the full universe of families accepting Welcome Home and Early Start services. If the study sample mirrors the characteristics and service experiences of these broader populations, a higher level of confidence can be placed in our ability to generalize the evaluation's findings to overall program performance. Using administrative data from the county, we developed a descriptive profile of families who received Welcome Home services and/or were referred to Early Start during the period the study sample was recruited. A comparison was completed between the created profile and the study's sample to explore similarities and differences in demographics and service experiences between the two groups. This section of the chapter presents these comparisons.

Comparisons on Descriptive Characteristics:

Table 4.1 compares the full Early Start participant sample to all families recruited into Early Start from both Welcome Home and OWF during the study enrollment period (2001). As this table indicates, the study sample mirrors the general service population on a number of important dimensions, including maternal age and marital status. In addition, the OWF sample mirrors the general population of all referrals from this source with respect to race, income and residential location. In contrast, our sample of Welcome Home referrals includes a slightly lower than expected proportion of African Americans, very-low-income families, families living within one of the eleven core zip codes served by the program, and a higher concentration of young mothers ages 16 and 17. To an extent, these patterns may reflect a sample recruitment bias. White adolescents receiving Welcome Home may have been more willing to participate in a research project, particularly one that offers a tangible benefit (i.e., gift certificates). The study may have been less attractive to older African American mothers. These patterns also might reflect the relatively few number of cases enrolled in the study by Metro Health Center, the major public medical facility serving Medicaid eligible families in inner-city Cleveland. In contrast to many of the other health providers offering Welcome Home, Metro serves a greater proportion of new parents facing significant socio-economic challenges.

Although not fully reflective on all dimensions of the universe of Early Start referrals, the sample does capture much of the diversity existing within the program's target population. Thus, the sample provides a rich opportunity to assess the service experiences of a diverse group of

Table 4.1 Demographic Comparisons between Study Sample and Full Early Start Population

	Early Start	
Variables	All 2001 Referrals	Study Sample
Sample Size	3,596	492
Mean Age		
Welcome Home referrals	22	19
OWF referrals	22	24
Parents 16-17 (%)		
Welcome Home referrals	11	22
OWF referrals	13	3
African American (%)		
Welcome Home referrals	62	50
OWF referrals	67	70
Never Married (%)		
Welcome Home referrals	94	91
OWF referrals	88	83
Low Income[a] (%)		
Welcome Home referrals	61	51
OWF referrals	62	69
Living in One of 11 Core Zip Codes[b] (%)		
Welcome Home referrals	65	41
OWF referrals	71	71

[a] For the full, Early Start Sample, this figure represents the proportion of families with incomes less than 185% of the poverty level. For the evaluation samples, this figure reflects a family income below $10,000.

[b] These eleven zip codes include 44102, 44103, 44104, 44105, 44108, 44109, 44110, 44112, 44113, 44120, and 44128.

new parents and is sufficiently robust to support a variety of analyses regarding differential service dosage and duration among new parents of different ages, incomes, and races.

Comparisons in Terms of Referral Source to Early Start:

Between July 1999 and June 2002, almost 24,000 families were referred to Early Start by one of the program's six referral sources – Welcome Home, Ohio Works First, hospitals, community agencies/providers, self or family, and public institutions such as Department of Children and Family Services (DCFS), state employment programs and mental health agencies. Table 4.2 summarizes the distribution of referrals across these six sources since Early Start's implementation. As illustrated in this table, the importance of OWF as Early Start's primary referral source has dramatically decreased over time, reflecting a general drop in welfare caseloads. In addition, a greater proportion of new parents who may eventually receive welfare may now be identified by other community agencies during their pregnancy or at the time they give birth, reducing the need for a specific referral to the program by their OWF caseworker.

In contrast, the proportion of families referred by Welcome Home or who self-referred into the program showed a steady increase over the program's first 2 years, increasing from 2 percent in 1999 to almost one-quarter of all referrals in the second half of 2001. Beginning in

Table 4.2 Distribution of Early Start Referrals in Percentages Among All Sources

Referral Source (%)	1999B	2000A	2000B	2001A	2001B	2002A	Average for all periods
Total Number	3,984	5,007	3,392	4,505	4,058	2,805	23,751
Welcome Home	15	13	18	17	17	26	17
Ohio Works First	58	49	31	36	28	25	39
Hospitals	8	10	12	9	11	14	10
Community Agencies/Providers	14	18	17	17	13	14	16
Self or Family	2	7	19	18	26	15	14
Public Institutions	3	2	3	3	4	5	3
Other or Unknown	1	1	1	1	0	1	1

Note: Analysis is for 6-month time period. B denotes the time period July 1 to December 31. A denotes the time period January 1 to June 30.

2002, however, this trend shifted rather dramatically. In absolute terms, the number of self-referrals dropped from 1,053 in the second half of 2001 to 419 in the first 6 months of 2002. Program staff have speculated that the drop in self-referrals is directly associated with the elimination of Prevention Retention and Contingency (PRC) funds. These resources provide Early Start home visitors resources to address a family's immediate need for such concrete items as rent payments or housing deposits, winter clothing for their children, household furnishings and appliances. Whereas some new parents are motivated to enroll in services solely as a way to enhance parental capacity, the Early Start home visitors report that many new parents also viewed Early Start services as a way to meet immediate needs for themselves and their children. The elimination of these funds severely limit the ability of Early Start home visitors to respond to such requests.

During the time when the evaluation sample was recruited (2001), almost half of the Early Start referrals came from the two sources generating participants for the evaluation study (e.g., OWF and Welcome Home). There had been some initial concern that limiting our sample to these two sources would reduce the likelihood of capturing families at the highest end of the risk continuum, such as those being referred by public institutions (e.g. DCFS). Although referrals from these agencies may indeed represent a more challenged or "at-risk" population, these referral sources have contributed only 3 to 5 percent of the total referrals to the program each year (Table 4.2). Since the absolute number of such cases appears quite modest, they are unlikely to impact aggregate program performance outcomes.

Within the Welcome Home referral system, the largest proportion of families in our study is coming from those same hospitals that provide the majority of Early Start referrals (Table 4.3). Four of the sixteen Welcome Home providers (e.g., the Cleveland Clinic Home Care, Fairview Hospital, Metro Health Medical Center, and University Hospitals of Cleveland) accounted for 87 percent of the program's Early Start referrals in 2001. Similarly, these four agencies accounted for 77 percent of Early Start-Welcome Home participants in our sample, although our sample does include a higher than expected proportion of referrals from Fairview Hospital and a lower than expected proportion of referrals from Metro Medical Center. The absence of a notable percentage of referrals to the study from Metro Medical Center, the major public medical facility serving low-income families in the County, suggests the evaluation sample may underestimate the extent to which Early Start is being offered to families facing the greater parental challenges.

Table 4.3 Early Start Referrals (%) by Welcome Home Hospitals and Nursing Agencies - July 1999 through June 2002

Hospitals (%)	1999B	2000A	2000B	2001A	2001B	2002A	Early Start Population *N*	Early Start Population %	Welcome Home-Early Start Referral Sample *N*	Welcome Home-Early Start Referral Sample %
Total Number	584	668	615	769	710	741	4,087	100	471[a]	100
Bedford	0	0	0	0	0	0	2	0	0	0
Cleveland Clinic Home Care	3	7	9	11	14	15	413	10	57	12
Euclid Hospital	0	0	1	1	0	0	13	0	0	0
Fairview Hospital	13	14	13	10	10	9	459	11	96	20
Hillcrest	0	0	0	0	0	0	4	0	0	0
Lakewood Hospital	2	2	2	3	2	4	100	2	28	6
Marymount Hospital	2	2	3	2	1	1	73	2	17	4
Meridia Home Health	4	0	0	0	0	0	25	1	0	0
Metro Medical Center	28	32	34	35	41	41	1,460	36	111	24
Mt. Sinai	0	0	0	0	0	0	1	0	0	0
Parma Community Hospital	2	3	2	1	2	2	81	2	19	4
Professional Nurse Associates	3	7	7	6	6	5	226	6	40	8
St. John West Shore Hospital	0	0	0	0	0	1	14	0	1	<1
Southwest General Health Center	1	0	1	0	0	0	18	0	1	<1
University Hospital Home Care Service Inc.	25	30	27	30	23	22	1,076	26	101	21
Visiting Nurses Association	16	2	0	0	0	0	111	3	0	0
Unspecified	0	1	0	1	0	0	11	0	0	0

Note: Analysis is for 6-month time period. B denotes the time period July 1 to December 31. A denotes the time period January 1 to June 30.

[a] Sample size includes all those referred to Early Start and offered enrollment in the study by Welcome Home providers. Includes 325 who accepted enrollment into the study and 146 who refused. See Appendix 4.1 for information on refusals by hospital.

Comparison in Terms of Early Start Service Agencies:

Table 4.4 summarizes the referral patterns out to the various community-based agencies offering Early Start services over the program's full history. The number and identity of these agencies have changed over time. While at the time we enrolled families into the study, twenty-nine agencies had active contracts to provide Early Start services, at present twenty-seven agencies are offering Early Start services. On balance, the distribution of cases observed in the evaluation sample generally reflects the distribution of cases observed for the full Early Start population. As summarized in Table 4.4, over half of all Early Start cases enrolled during 2001 were referred to seven community service providers. These agencies include Berea Children's Home (receiving 13% of all referrals); Positive Education Program (receiving 9% of all referrals); Beech Brook (receiving 8% of all referrals); Bellflower and MCH Services (both receiving 7% of all referrals); Applewood (receiving 6% of all referrals); and Options for Families and Youth (receiving 5% of all referrals). The balance of Early Start cases were served by one of the program's remaining twenty-three service providers.

A similar concentration of cases exists within the evaluation sample. About 67 percent of all Early Start families enrolled in the evaluation were referred to the same seven providers. The largest proportion of cases in our sample were served by Berea Children's Home (18% of the cases); Positive Education Program (12% of the cases); Bellflower, Options for Families and Youth and MCH Services (each serving 6% of the cases); Beech Brook (7% of the cases); and Applewood (6% of the cases). Because the majority of families in the population and the evaluation sample were being served by the same providers, we have a greater level of confidence that the service experiences documented in the evaluation will reflect the experiences of the general Early Start population.

Research Implications:

The evaluation sample of Welcome Home and Early Start recipients reflect the general program population in terms of their personal and service characteristics. As with the full service population, the sample is also typical of new parents giving birth in the county and being referred on to Early Start. Although the sample includes a slightly smaller than anticipated proportion of very-low-income families and African Americans and a slightly higher portion of teen parents, (particularly among the Early Start sample referred by Welcome Home), these differences are not substantial. Sufficient variation exists within all three samples to examine the influence key demographic characteristics might have on service duration and dosage. Further, the distribution of the sample served by various Welcome Home and Early Start service providers is very similar to the service patterns observed in the full population. As such, the nature of the services offered this sample in terms of organizational auspice and staff characteristics are comparable to the experiences for both Welcome Home and Early Start recipients.

Table 4.4 Distribution and Proportion of Early Start Participants by Provider Agency - July 1999 through June 2002

Agency (%)	1999B	2000A	2000B	2001A	2001B	2002A	Early Start Population *N*	Early Start Population %	Early Start Sample *N*	Early Start Sample %
Total Number	**3,758**	**3,324**	**3,186**	**3,418**	**3,310**	**2,836**	**19,832**	**100**	**508** [a]	**100**
Achievement Centers for Children	0	0	0	0	2	3	154	1	0	0
Applewood Centers	10	10	3	8	4	5	1323	7	30	6
Beech Brook	16	10	12	10	6	6	2022	10	35	7
Bellefaire	1	1	1	0	3	2	251	1	6	1
Bellflower Center	4	5	3	3	10	7	1072	5	44	9
Berea Children's Home	12	14	10	13	14	20	2681	14	92	18
Cleveland Clinic Children's Home	0	2	2	2	2	3	302	2	4	<1
Collinwood Community Services	1	2	1	1	0	0	149	1	0	0
Cty. Board of Health	1	2	2	3	2	2	372	2	15	3
Cty. Board of MR/DD	0	0	0	0	0	0	12	0	0	0
East Cleveland Neighborhood Ctr.	3	1	1	1	1	0	257	1	3	<1
Family Life-PAT	1	2	1	1	0	1	186	1	2	<1
Friendly Inn	7	7	9	5	4	4	1219	6	13	3
Garden Valley Neighborhood	1	3	1	2	2	1	382	2	4	<1
Garfield Heights Community Ctr.	3	4	6	4	4	4	808	4	12	2
Harvard Community Services	4	4	10	5	2	4	958	5	13	3
Health Design Plus/PNA	1	1	1	1	1	0	156	1	14	3
Heights Youth Center	3	2	4	3	3	1	515	3	8	2
Lexington Bell Community Ctr.	1	1	2	0	1	1	228	1	1	<1
MCH Services	0	0	0	8	6	8	679	3	41	8
Merrick House	2	3	4	3	4	3	593	3	12	2
Murtis Taylor	1	0	1	0	2	1	148	1	1	<1
Neighborhood Centers Assn.	1	0	0	0	0	0	43	0	0	0
Options for Families and Youth	4	4	5	5	6	6	982	5	39	8
Positive Education Program	6	8	8	10	8	9	1620	8	59	12
St. Ignatius H.S. Parent-Child	1	0	1	0	1	0	93	0	0	0
St Martin de Porres Center	4	3	3	3	4	3	633	3	13	3
University Hospital	4	6	3	5	3	3	828	4	23	5
University Settlement	7	7	6	3	5	3	1038	5	20	4
West Side Community	1	0	0	0	1	0	102	1	4	<1
Other	1	0	0	0	0	0	26	0	0	0

Note: Analysis is for 6-month time period. B denotes the time period July 1 to December 31. A denotes the time period January 1 to June 30.

[a] Sample Size includes Welcome Home-Early Start and OWF-Early Start referrals enrolled in the study. Ten study participants never received a ref erral to an Early Start provider (four changed their mind about the program before referral was sent, one was sent directly to Early Intervention, and Interlink never received a referral from the hospital for the remaining five).

Characteristics of Study Sample

Significant differences existed at enrollment and at the initial interview among the study's three parent samples. To identify the most salient differences, we compared the two Welcome Home samples and the two Early Start referral groups. In the first instance, we were interested in identifying any notable areas in which the Welcome Home referral system might miss new mothers facing significant elevated risk in any of our outcome domains. This analysis also provided a basis for determining the specific covariates we might use in comparing change over time between the two samples, using the Welcome Home only population as a comparison group to those referred on to Early Start.

The second set of comparisons examined the extent to which families referred to the program through two different referral sources represented populations with significantly different risk levels as determined by our specific set of measures. As discussed earlier, the systematic use of multiple referral sources and multiple opportunities for enrollment into Early Start is unique among home visitation programs targeting new parents. Most of these models rely on a single referral source or offer services at a single point in time, either when a woman is pregnant or at the time she gives birth (Daro, in press). One potential benefit of multiple referral sources and opportunities for enrollment is that such a strategy may be a more appropriate fit for expectant or new mothers who have chaotic lives or who are initially resistant to the idea of accepting formal support or assistance in meeting their parenting obligations (McCurdy & Daro, 2001). On the other hand, if this redundancy generates too diverse a participant population, direct service providers may find it more difficult to adequately respond to the many and varied needs presented by families on their caseloads. By comparing the demographic and personal functioning profiles of these two referral samples, we can address the extent to which participant variation exists within the Early Start population. The purpose of this section is to discuss these comparisons and their implications for our analytic approach.

Demographic Characteristics:

Key descriptive characteristics for the study's three samples--Welcome Home only (WH), Welcome Home-Early Start referrals (WH-ES), and OWF-Early Start referrals (OWF-ES)--are summarized in Table 4.5. In contrast to the other two samples, the Welcome Home only group includes a higher proportion of participants who were white (70.2%), married (60.1%) and employed (72.8%). About one-third of the Welcome Home group had completed college and over half reported household incomes in excess of $40,000 a year. In contrast, the majority of WH-ES sample had at least one of the demographic markers commonly associated with an elevated risk for child maltreatment and poor parenting (Daro, 1988; Guterman, 2001; Olds et al., 1986). About one-quarter of the WH-ES women were teen parents between the ages of 16 and 17 and, as a group, their mean age was 19.4 years, considerably younger that the mean age reported for the WH group (26.1 years). Over 90 percent of this group reported never being married and over half had not yet graduated from high school. Reflecting their young age, the majority of the WH-ES group (57%) reported living with their parents. In contrast to the WH group, the majority of the WH-ES group had little experience in the work force, although a large proportion (44%) indicated they were actively seeking work. Half of the WH-ES group (51.3%) reported household annual incomes of less than $10,000.

Table 4.5 Demographic Characteristics of Study Sample at Time of Study Enrollment

	WH	*Test statistics*	WH-ES	*Test statistics*	OWF-ES
Sample Size	269		314		178
Average Age (SD)	26.1 (5.7)	t = 18.1**	19.4 (3.0)	t = -11.8**	23.6 (4.8)
Teen Parents[a] (%)	3.3	χ^2 = 43.4 **	22.0	χ^2 = 30.4 **	3.4
Race/Ethnicity (%)		χ^2 = 94.1 **		χ^2 = 19.8 **	
African American, Black, not Hispanic	19.2		50.5		70.1
Hispanic	4.2		9.4		8.0
Asian or Pacific Islander	3.8		0.0		0.0
American Indian	0.4		1.0		0.0
White, not Hispanic	70.2		34.5		20.1
Other	2.3		4.6		1.7
Marital Status (%)		χ^2 = 217.3 **		χ^2 = 20.5 **	
Never Married	24.7		67.9		70.9
Never Married, living with boyfriend/partner	14.1		24.7		12.2
Married, living with spouse	60.1		3.9		8.7
Married, living apart	0.8		1.9		2.9
Legally Separated	0.0		0.3		1.2
Divorced	0.4		1.0		4.1
Widowed	0.0		0.3		0.0
Educational Level (%)		χ^2 = 206.8 **		χ^2 = 27.4 **	
Less than high school	0.8		11.7		4.0
Some high school	7.2		41.9		30.1
High school/GED	26.8		30.2		33.5
Some college	27.2		14.6		28.9
Associates degree	7.5		0.3		2.3
Bachelors degree	16.6		1.3		1.2
Graduate degree	14.0		0.0		0.0
Employment Status (%)		χ^2 = 128.5 **		χ^2 = 9.5 *	
Employed full-time	34.5		5.6		8.1
Employed part-time	4.5		5.0		11.0
Employed, on maternity leave	34.8		21.8		24.4
Unemployed, looking for work	11.4		44.2		38.4
Unemployed, not looking for work	14.8		23.4		18.0
Household Income (%)		χ^2 = 157.3 **		χ^2 = 31.4 **	
Under $5,000	10.8		34.2		55.3
$5,000 to $9,999	4.4		17.1		13.2
$10,000 to $19,999	8.8		20.6		20.8
$20,000 to $29,999	15.3		14.0		9.4
$30,000 to $39,999	8.0		8.2		0.0
$40,000 to $49,000	13.3		1.9		0.0
Over $50,000[b]	39.4		3.9		1.2

(table continues)

Table 4.5 (continued)

	WH	*Test statistics*	WH-ES	*Test statistics*	OWF-ES
Average number of adults in household (*SD*)	2.2 (.71)	$t = -1.6$	2.3 (1.1)	$t = 5.1^{**}$	1.8 (.93)
Other Adults living in household (%)		$\chi^2 = 220.5^{**}$		$\chi^2 = 87.1^{**}$	
Spouse	57.7		3.3		7.0
Boyfriend/Girlfriend	14.0		17.0		8.2
Mother's Parents/Foster Parents	6.8		31.7		17.5
Other relatives	2.3		4.9		9.4
Friends/Others	.8		1.6		1.8
More than one of the above categories	12.8		30.7		12.9
No other adults/Live alone	5.7		10.8		43.3
Maternal History					
Mother's first child (%)	94.8	$\chi^2 = 7.2^{**}$	87.3	$\chi^2 = 137.9^{**}$	38.2
Average number of children (*SD*)	.1 (.44)	$t = -2.4^{*}$	.2 (.64)	$t = -12.3^{**}$	1.3 (1.4)

Note: A t-test or chi-square test was applied to differences between characteristics of WH and WH-ES and WH-ES and OWF-ES to determine whether apparent differences were statistically significant. For variables that are not independent of one another (e.g. race/ethnicity, marriage status, etc.) a chi-square test was used. The results of this test (the asterisk indicating *p*-value) are shown on the line with the name of the variable.

[a] Teen is defined as ages 16 and 17.

[b] OWF participants with household income over \$50,000, were young and lived with several relatives.

Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

Although the sample referred to Early Start through OWF shared many of the socio-economic risk factors observed in the WH-ES referral group, only one-third of the OWF-ES referrals were first-time parents. In contrast, 95 percent of the WH group and 87 percent of the WH-ES reported being first-time parents. Compared to the WH and WH-ES samples, the OWF-ES population had the largest proportion of African Americans (70.1%) and the largest proportion of respondents reporting household annual incomes of less than \$5,000 (55.3%). Compared to the Early Start referrals from Welcome Home, the OWF-ES sample reported a slightly higher level of educational achievement (i.e., almost two-thirds of the OWF-ES referrals had at least a high school diploma or G.E.D.).

These demographic differences among the three sample groups reflect the types of participant profiles expected among programs with different target populations. As the most universal of the programs, Welcome Home serves families that reflect the dominant demographic patterns observed throughout the county among new parents (e.g., generally married, wider income range, and diverse educational and employment experiences). In contrast, participants referred on to Early Start, either by Welcome Home nurses or OWF caseworkers, include a higher proportion of families that share demographic markers often indicating an elevated risk for child abuse and other poor adult and child outcomes (Chalk & King, 1998; Daro, 1988).

Personal Functioning:

Given these demographic and socio-economic differences, we expected to observe similar variation in the baseline scores reported for these groups on our array of standardized measures. As summarized in Table 4.6, statistically significant differences were observed between the two Welcome Home samples and the two Early Start samples on the majority of

Table 4.6 Baseline Scores of Performance Measures

	Welcome Home Visit Only			Welcome Home- Early Start			Ohio Works First-Early Start	
Measures	*M*	*(SD)*	Difference	*M*	*(SD)*	Difference	*M*	*(SD)*
Sample Size	269			314			178	
Family Strengths	8.6	(.65)	.31	8.3	(.69)	-.42 **	8.7	(.96)
Readiness to Change	56.7	(6.3)	-1.6 **	58.3	(6.6)	-.21	58.5	(6.8)
Performance Measures								
Knowledge of Infant Development (KIDI)								
Correct	69.4	(.13)	.07 **	62.2	(.12)	-.04 **	65.8	(.11)
Baby Safety Checklist (BSC)								
Correct	88.1	(.05)	.02 **	86.6	(.07)	-.01	87.3	(.06)
Parenting Sense of Competence (PSOC)	74.9	(9.1)	-.6	75.5	(8.7)	.7	74.6	(8.2)
PSOC-Skill/Knowledge*	33.4	(5.3)	-1.2 **	34.6	(4.7)	.4	34.2	(4.4)
PSOC-Valuing/Comfort	41.5	(5.7)	.6	40.1	(5.9)	.3	40.7	(5.8)
Social Support Behaviors (SSB)	42.8	(2.7)	.8 **	42.0	(3.3)	1.3 **	40.7	(6.8)
SSB Practical Help*	6.8	(.53)	.2 **	6.6	(.66)	.2	6.5	(1.1)
SSB Financial Assistance*	7.7	(.79)	.2 **	7.5	(1.05)	.4 **	7.1	(1.8)
SSB Advice Guidance*	11.8	(.76)	.2	11.6	(1.3)	.3 **	11.3	(2.0)
SSB Emotional*	9.7	(.78)	.2 **	9.5	(.90)	.3 **	9.2	(1.7)
SSB Socializing	6.7	(.67)	.01	6.7	(.55)	.2 *	6.6	(1.0)
Social Support Index (SSI)	69.6	(8.0)	4.2 **	65.4	(8.0)	3.1 **	62.3	(8.7)
Perceived Stress Scale (PSS)	13.3	(5.9)	-1.1 *	14.4	(6.4)	-2.4 **	16.8	(7.0)
Depression Mood Scale (CES-D)*	8.4	(7.3)	-3.4 **	11.8	(8.6)	-2.3 **	14.1	(9.6)
Child Abuse Potential Inventory (CAP)	76.7	(58.9)	-13.6 **	90.3	(67.5)	-29.5 **	119.7	(83.6)

Note: Actual sample sizes for individual measures may vary as a result of missing data. A two-tailed t-test was used to assess the statistical significance of differences in characteristics between Welcome Home Only and Welcome Home-Early Start Referrals, and Welcome Home-Early Start referrals and OWF-Early Start Referrals.

Statistical significance levels are indicated as **$p < 1$ percent and *$p < 5$ percent.

these measures. However, in all but two instances, these differences were relatively minor and did not suggest substantive differences across groups.

No statistically significant or substantive differences were observed between the two Welcome Home service groups or the two Early Start referral samples on the Parental Sense of Competence total score or the value parents place on parenting. All three of the samples scored at or above levels that have been observed among participants in other studies of child abuse prevention programs targeting new parents (Duggan et al., 1999). In addition, all three groups' mean scores on our measures of child development knowledge and baby safety were relatively high and clinically comparable. The average participant in all three groups correctly answered over 60 percent of the questions on the Knowledge of Infant Development Inventory and at least 87 percent of the questions on the Baby Safety Checklist. The average respondents in all three groups noted a similar number of family strengths (at least eight out of ten) and expressed similar levels of interest in using social services to achieve changes in their parenting skills or behaviors (e.g., average scores on the Readiness to Change measure ranged from 56.7 to 58.5 out of a possible score of 80).

Compared to those in the WH service group, participants in the WH-ES referral group did report, on average, significantly fewer formal and informal resources to meet their needs and less "connection" to their families and local communities, as measured by the Social Support Behaviors (SSB) and Social Support Index (SSI). This group also reported statistically higher levels of stress as measured by the Perceived Stress Scale ($M = 14.4$, $SD = 6.4$) than the WH group ($M = 13.3$, $SD = 5.9$). Similar patterns were observed in our comparisons of the two Early Start referral groups, with the OWF-ES group presenting fewer resources and higher stress as measured by the SSB, SSI and parental stress scale than WH-ES referrals.

In contrast, more substantive differences were observed between the two sample comparisons in their potential risk for physical abuse and clinical depression. With respect to our comparison of the two Welcome Home samples, the average CAP score of participants in the WH group ($M = 76.7$, $SD = 58.9$) was significantly lower ($p < .01$) than the average score for the WH-ES group ($M = 90.3$, $SD = 67.5$). The gap between the average CAP scores between these two groups is particularly striking given that our sample selection process for the WH group focused on identifying the most at-risk families among the 981 Welcome Home participants initially recruited for the study. This full, random sample of Welcome Home recipients had an average CAP score of 42 ($SD = 44$). On balance, this pattern suggests that although the current screening process may indeed miss some at-risk families, the majority of families facing the greatest challenges are appropriately identified by the Welcome Home nurse and referred on to Early Start at the time the baby is born. The pattern also suggests that despite our attempts to "match" participants in both groups on their baseline CAP score, the WH group remained significantly less at risk, as measured by the CAP, than the WH-ES group.

In comparing the two Early Start referral groups, those participants enrolled through OWF had significantly higher ($p < .01$) CAP scores ($M = 119.7$, $SD = 83.6$)) than those families referred to Early Start by the Welcome Home nurse ($M = 90.3$, $SD = 67.5$). However, even at this elevated level, the average OWF-ES CAP score suggests only a moderate risk for actual physical abuse. Generally, subjects are considered at high likelihood for abuse only when their scores exceed 166 (Milner, 1994). Although not presenting the highest level of risk, the average score for both Early Start samples are comparable to the CAP scores reported by other samples of new parents who have enrolled in various child abuse prevention programs (Chaffin, Bonner, & Hill, 2001; Daro, 2000). As such, it appears that Early Start is serving a population commonly targeted by prevention services and a population that voluntary prevention programs may be in a particularly strong position to successfully serve (Daro, McCurdy, Falconnier, & Stojanovic, in press; Guterman, 2001).

The Center for Epidemiological Studies – Depressed Mood Scale (CES-D) also showed notable differences between the two sample comparisons. A significant difference on this measure was observed between both the two Welcome Home service groups ($t = -3.4$, $p < .01$) and the two Early Start referral groups ($t = -23$, $p < .01$). As with the CAP, the average scores for both of WH-ES (11.8) and the OWF-ES referral (14.13) groups, while high, were lower that the benchmark score used to indicate clinical depression (i.e., 16). Unlike the CAP, however, a sizable minority of participants in all three groups scored above this clinical benchmark for high risk. Overall, 16 percent of the WH sample, about one-quarter of the WH-ES group and over one-third of the OWF-ES group scored 16 or higher on this measure. This finding confirms that the potential for depression, while apparently highest among new parents with a number of socio-economic risk factors, exists across a broad range of new parents. The link between a mother receiving an initial high CES-D score at the time her infant is born and subsequent abusive or neglectful behavior is not well specified and most certainly is influenced by the presence of other risk or protective factors. Thus, it is not clear that providing more intensive services to women solely on the basis of elevated depression scores is necessary. However, the pattern does provide a justification for implementing a universal service delivery system like Welcome Home that can introduce all new mothers to an array of services that they may find useful in combating depression or that they can contact if they feel overwhelmed or unable to cope with the demands of their infants.

Specific Parental Concerns and Attitudes Toward Formal Services:

At the time their babies were born, parents in all three groups reported relatively few concerns about meeting their baby's basic needs or providing for their own health and emotional well-being. As summarized in Table 4.7, the average number of concerns across the three groups ranged from 3.4 for the WH group; to 3.7 for the WH-ES referrals; to 4.4 for the OWF-ES referrals. The mean number of concerns listed by those in the OWF-ES referral group was significantly higher than the number reported by the WH-ES group. In addition, almost one-third of the participants in the OWF-ES referral sample had concerns with their self-sufficiency plan. When this issue is included in the list of potential concerns, the average number of concerns noted by OWF-ES participants increased to 4.6 ($SD = 3.3$).

Table 4.7 also details the proportion of participants in each sample group who expressed concerns in a given area and the extent to which they believed Early Start (in the case of the Early Start referral samples) or other community agencies (in the case of the Welcome Home-only service group) could help them address each concern. As illustrated in the table, there are variations in the types of problems of greatest concern across the three groups. Although a substantial proportion of parents in both Early Start referral groups expressed child development concerns, such concerns were more common among the WH sample. The most common concerns raised by participants in the two Early Start samples involved housing, employment, and financial issues. These differences were not surprising and reflect the very different economic and family characteristics of the three groups, as described earlier.

Table 4.7 Concerns and Belief ES/Community Services Can Help at the Initial Interview

Measures	Welcome Home Visit Only	Difference	Welcome Home – Early Start Referrals	Difference	Ohio Works First – Early Start Referrals
Mean number of parents concerns (range between 0 - 13)^a	3.4 (2.9)	-0.31	3.7 (3.1)	-.95 *	4.4 (3.1)*
Mean number of concerns that Early Start/community programs will help	2.6 (2.5)	-.53 *	3.1 (2.6)	-.32	3.3 (2.6)
Type of Concerns					
Finding a different home or improving a current residence (%)	42.9		48.4		67.2
Believe Early Start/community will help (%)	51.3		58.2		61.9
Child development (%)	57.2		45.9		44.4
Believe Early Start/community will help (%)	82.4		90.3		91.1
Having adequate child care (%)	37.5		37.3		47.2
Believe Early Start/community will help (%)	66.3		82.6		78.0
Financial issues(%)	34.5		41.2		58.4
Believe Early Start/community will help (%)	47.8		60.9		54.4
Feeding your infant (%)	32.1		25.5		23.0
Believe Early Start/Community will help (%)	82.6		86.1		75.6
Health care for baby (%)	21.2		32.5		38.2
Believe Early Start/community will help (%)	82.5		85.1		80.6
Participant's mental and/or physical health (%)	20.9		20.2		27.5
Believe Early Start/community will help (%)	80.4		63.1		47.9
Relationship with significant others (e.g., husband, partner, boyfriend) (%)	19.3		21.0		24.4
Believe Early Start/community will help (%)	38.5		41.5		27.9
Relationships with extended family (%)	15.4		14.7		18.5
Believe Early Start/community will help (%)	51.2		43.5		33.3

(table continues)

Table 4.7 (continued)

Measures	Welcome Home Visit Only	Difference	Welcome Home – Early Start Referrals	Difference	Ohio Works First – Early Start Referrals
Establishing friendships with others in the community (%)	13.1		9.2		7.9
Believe Early Start/community will help (%)	82.9		46.7		42.9
Legal issues (%)	9.0		11.5		14.1
Believe Early Start/community will help (%)	62.5		58.8		47.8
Employment/job training(%)	16.5		37.6		45.8
Believe Early Start/community will help (%)	65.1		67.2		71.3
Community violence (%)	19.9		24.1		27.5
Believe Early Start/community will help (%)	49.1		36.5		30.4
Self-sufficiency					
Self-sufficiency plan requirements (%)[b]					30.5
Believe Early Start/community will help (%)					79.4

Note: Numbers in parentheses are standard deviations. A two-tailed t-test was used to assess the statistical significance of each difference in characteristics between Welcome Home Only and Welcome Home-Early Start Referrals, and Welcome Home-Early Start referrals and OWF-Early Start Referrals.

[a] Early Start Referrals were asked if they thought Early Start could help them with their concerns. Welcome Home only study participants were asked if *any community program* could help them with this concern.

[b] Applicable to OWF group only. This item is not included in the total score for the OWF sample. When this measure is included in the total number of parental concerns the mean is 4.6 with a standard deviation of 3.3. The mean number of concerns OWF believe Early Start/community programs will help with is 3.5 (2.7) when self-sufficiency concerns are added to the calculation.

Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

The majority of respondents in all three groups who expressed concerns with child development and various infant care issues were fairly confident that Early Start or other community services could help them address these concerns. For example, over 90 percent of those referred to Early Start who were concerned about their infant's development believed Early Start would address this need. Over three-quarters of Early Start referrals with concerns regarding how to feed their baby or secure necessary health care for their babies also believed Early Start would addressed these concerns. Similarly, over 80 percent of the WH participant group with this range of infant concerns expressed confidence that community service resources were available to help them with these issues. In contrast, less agreement existed across the three groups in the efficacy of services in helping with issues such as the participant's mental or physical well-being and securing adequate childcare. Whereas over 80 percent of the WH participants with concerns about their own physical and mental health thought community services were available to help them in these areas, only 63 percent of the WH-ES referrals and 48 percent of the OWF-ES referrals believed Early Start would specifically address these concerns. On the other hand, over 80 percent WH-ES referral group and 78 percent of the OWF-ES referral group who had child care concerns thought Early Start would be helpful in meeting this need. Only 66 percent of those new parents in the WH sample with concerns about having adequate childcare believed community services would be helpful in filling this need. For the small group of respondents that expressed concern with establishing friendships with others in the community or with community violence, respondents in the WH group were generally more optimistic about finding community resources to address these concerns than participants in either Early Start referral group were that Early Start would help them in this area.

Overall, these patterns suggest that new parents have diverse needs and different opinions regarding the likelihood that community service or formal supports can or should address these concerns. These differing opinions may reflect a variety of underlying concerns or preferences. With respect to the WH sample, these new parents may be unaware of the full range of services available in the community and, therefore, believe that service resources are simply not available to help them. In other cases, parents may be aware of various services options but feel either that the quality or capacity of these programs are inadequate or that such services are inappropriate for addressing personal or parenting concerns. As we note later in this report, the WH parents were more likely at the time of our 3-month interview to rely on family members and friends to help them resolve basic parenting concerns or child care needs than to use formal, community services. Again, we do not know if these parents first turned to their informal networks because this was their preference or because they were not fully familiar with local service options. However, these patterns do suggests that families use a variety of strategies to address their parenting needs and that the specific role formal support will play may depend partly on how familiar potential consumers are with local service options and partly on their perceptions of service quality and utility.

Research Implications:

Although not unexpected, the pattern of differences observed in this sample limit our ability to use the Welcome Home only group as a possible comparison for assessing Early Start impacts. In addition to the pattern of multiple bivariate differences noted above, we also used ordinary least squares analysis to measure the differences between all three research groups in one statistical procedure. This allowed us to determine whether the large number of observed differences was a reflection of a common set of baseline characteristics that influenced the independence of these individual comparisons. The *F*-statistic from these analyses was found to be significantly different from zero, indicating that there is a relationship between sample characteristics at baseline and enrollment into one of the study's three samples.[3] Given that these groups are non-equivalent, possible impacts or program effect sizes may be influenced by selection or measurement bias. In presenting our outcome data, statistical methods have been employed to control for several of these underlying differences. However, such procedures simply allow one to correct for but not eliminate all of these preexisting differences.

The within group variation among Early Start referrals does provide an excellent context for examining the extent to which services might result in different outcomes for different clusters of new parents (e.g., teen versus older mothers, high-risk versus moderate-risk, etc). In the case of the two Early Start referral samples, variation in the mothers' initial perceptions of the purpose and efficacy of Early Start services may impact the extent to which participants remain enrolled in the program. Given Early Start's focus and theory of change, we would hypothesize that those new parents who view Early Start as a useful strategy for addressing basic concerns regarding child development and infant care may find the program more satisfying than those seeking concrete assistance in such areas as housing, child care, or financial aid.

In addition to allowing for a more nuanced examination of program effects, variation in the personal characteristics and functioning across all three groups allows us to examine the parenting challenges and concerns that surface during a child's first year of life for three distinct groups of parents--those with very few demographic markers associated with an elevated risk for abuse; those with a number of these demographic markers but only moderate levels of psychosocial risk; and those with relatively higher demographic and psychosocial risk profiles. Research on new parents and their service utilization patterns rarely include this type of diversity within a single analytic framework.

Three-Month Findings

This section summarizes the results of our telephone interviews with study participants. These interviews documented how Welcome Home recipients viewed the intervention 3 months later and how they used the information provided by the Welcome Home nurse to address various child-rearing and personal concerns. In addition, the 3-month interview asked all respondents, including those the OWF-ES referral group, the extent to which they had experienced specific problems or had various service needs over the past 3 months and what strategies they used to address these needs.

Welcome Home - Service Satisfaction and Initial Utility:

At the time services were initially provided, over 90 percent of Welcome Home recipients expressed satisfaction with every aspect of the program. There was no variation by demographic characteristics, Early Start referral status, or across providers. When contacted again at 3 months, Welcome Home recipients continued to have positive views of the program. As summarized in Table 4.8, virtually all of the respondents (over 98%) remembered the Welcome Home visit.

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[3] These regressions are presented in Appendix 4.2.

Table 4.8 Satisfaction with Welcome Home Services and Use of Material at the Three Month Interview

	Welcome Home Visit Only		Welcome Home-Early Start		*Test statistic*	
Remembered Welcome Home visit (%)	99.2		98.6		$X^2 =$ .49	
How helpful was Welcome Home -Total[a]	16.0	(2.8)	15.7	(3.0)	$t =$ .29	
Helpfulness for baby's medical and health needs	3.7	(.53)	3.6	(6.4)	$t =$ .07	
Helpfulness for child development information	3.6	(.57)	3.6	(.67)	$t =$ .02	
Helpfulness about affects of baby on mother's Health	3.6	(.61)	3.5	(7.5)	$t =$ .08	
Helpfulness in connecting mothers to community resources	3.1	(.99)	3.2	(1.0)	$t =$ -.06	
Helpfulness in connecting mothers with other new mothers	2.3	(1.3)	2.0	(1.1)	$t =$ .25	**
Client experiences satisfaction[b]	49.3	(4.5)	49.1	(5.0)	$t =$ .25	
Humanness of staff satisfaction subscale	23.0	(2.1)	22.9	(2.2)	$t =$ .71	
Total competence of staff satisfaction subscale	22.7	(2.2)	22.5	(2.5)	$t =$ .18	
Received material from nurse for baby (%)	90.6		88.4		$X^2 =$ .88	
Referred to the material for their baby (%)	69.5		63.1		$X^2 =$ 2.35	
To address concern over baby's health (%)	67.1		68.3		$X^2 =$ .06	
To address concern over baby's development (%)	72.0		69.1		$X^2 =$ .33	
To find a service referral or place for help (%)	37.7		36.9		$X^2 =$ .03	
To find out how to contact the Welcome Home Nurse (%)	46.4		45.3		$X^2 =$ .04	
To answer question for friend or family regarding their baby (%)	31.9		44.0		$X^2 =$ 5.05	*
Referred to the material for self (%)	28.2		23.2		$X^2 =$ 1.67	
To address concern over own physical health (%)	58.6		63.8		$X^2 =$ .36	
To address concern over own emotional well-being (%)	60.9		66.1		$X^2 =$ .38	
To find a service referral or place for help (%)	20.6		31.0		$X^2 =$ 1.80	
To find out how to contact the Welcome Home Nurse (%)	35.7		50.8		$X^2 =$ 3.00	
To answer question for friend or family regarding their health (%)	11.4		24.1		$X^2 =$ 3.60	

Note: Sample size for this analysis is Welcome Home Visit Only equals 266 and Welcome Home-Early Start Referrals equals 298. Numbers in parentheses are standard deviations. A t-test or chi-square test was applied to differences between characteristics of WH and WH-ES and WH-ES and OWF-ES to determine whether apparent differences were statistically significant. For variables that are not independent of one another (e.g., concerns over baby's health, development, etc) a chi-square test was used. The results of this test (the asterisk indicating p-value) are shown on the line with the name of the variable.

[a] The values of the helpfulness scales is 5-20, where the higher number indicates more helpfulness. The subscales range from 1 to 4.

[b] The "Client Experiences Questionnaire" scale ranges from 8 to 52 where higher number indicates a higher level of satisfaction.

Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

On a twenty-point scale of perceived "helpfulness", the WH group gave the program an average rating of 16.0, while those in the WH-ES group have the program an average rating of 15.7. The only performance area in which both groups did not find the program as helpful was in connecting them with other new mothers, although this pattern was significantly more noticeable among those moms in the WH-ES group than among those who only received Welcome Home. When asked to judge their experience with staff, respondents rated the Welcome Home nurse very high both in terms of her "humanness" and competency.

Over three-quarters of both groups said they used the Welcome Home materials when they had concerns about their babies. Considerably fewer respondents (only about one-quarter) used these materials to resolve concerns they had about their own well-being. Among those who used the Welcome Home materials provided by the nurse, infant health and development issues were the most common impetus for this behavior. The only difference in the use of these materials noted between the two groups was a higher likelihood among the Early Start referral group to use the information to find out how to contact the Welcome Home nurse or to answer a question for a friend or family member.

Parenting Concerns and Use of Formal and Informal Supports:

As part of the 3-month interview, all study participants were asked if they experienced a need or had a concern in one of seventeen different areas. Similar to patterns observed at the initial interview, respondents reported relatively few problems. As summarized in Table 4.9, the average number of needs reported by the three sample groups ranged from 4.1 for the WH group; 4.5 for the WH-ES referrals; and 5.2 for the OWF-ES referrals. Statistically significant differences in the number of needs were observed between the two Welcome Home samples (t =-.44, p <.05) and the two Early Start referral samples (t =-.63, p <.05).

As we observed at the initial interview, the needs identified by respondents differed across the three groups. Participants in the WH group were more likely to express needs for parent education classes, parent support groups, information on child development, and occasional childcare. In contrast, participants in the two Early Start referral groups were more likely to express needs for regular child care, housing, basic supplies, transportation and medical care for their baby. Although there were minor differences across sample groups in the proportion of respondents who drew on family or friends to meet their major needs, there were more consistent and significant differences in the use of formal and community-based services to address these needs. The average WH participant was less likely than the average WH-ES participant to use formal services (t =-.51, p <.01). Looking only at the two Early Start referral samples, the average participant referred by Welcome Home was significantly less likely to rely on formal services in meeting their array of needs than those referred by OWF (t =-.58, p <.05). A small, but significant difference was observed in the number of unmet needs reported by the participants in the two Early Start referral samples, with those in the OWF-ES group reporting a larger average number of unmet needs (t = .8, p < .05). Participants reported having the most difficulty meeting needs related to parent support groups, all forms of counseling and assistance in meeting basic needs such as housing, financial planning, and education. In addition, almost one-quarter of the participants in the two Early Start referral groups with job training needs indicated that these needs were not addressed during the 3-month observation period.

The extent to which participants in the three study groups used various health care services is summarized in Table 4.10. Not surprisingly, the majority of families in the WH group used private insurance plans and HMOs to cover their health care expenses, while families in the two Early Start referral group most frequently relied upon Medicaid or public health clinics. Although no significant differences were observed in the use of health care between the two Early Start referral samples, those new parents who only received Welcome Home went to the doctor for their own needs significantly fewer times that Welcome Home recipients who were referred on to Early Start (t =-.32, p <.05).

Table 4.9 Mean Number and Proportion of Sample with Various Parental Needs and the Sources of Informal and Formal Support Used to Meet Those Needs[a]

Measures	Welcome Home Visit Only	Difference	Welcome Home – Early Start Referrals	Difference	Ohio Works First – Early Start Referrals
Sample size	266		298		162
Mean number of needs mother has (range 0-17)	4.1 (2.3)	-.44 *	4.5 (2.7)	-.63 *	5.2 (3.1)
Mean number of needs helped by family/friends	2.4 (1.7)	-.08	2.5 (1.9)	.25	2.3 (1.7)
Mean number of needs helped by formal services	1.8 (1.8)	-.50 **	2.3 (1.9)	-.58 *	2.9 (2.5)
Mean number of unmet needs	.4 (.9)	-.15	.5 (1.0)	-.27 *	.8 (1.4)
Needs parent education classes (%)	8.3		7.0		6.2
Need met by family/friends (%)	14.3		36.8		0.0
Need met by formal services (%)	63.6		89.5		100.0
Need not address by any source (%)	31.8		4.8		0.0
Needs parent support group (%)	12.8		6.4		7.5
Need met by family/friends (%)	45.5		44.4		41.7
Need met by formal services (%)	52.9		72.2		50.0
Need not address by any source (%)	14.7		15.8		33.3
Needs a doctor for baby (%)	58.6		44.4		45.7
Need met by family/friends (%)	41.3		27.8		19.4
Need met by formal services (%)	61.8		78.7		84.7
Need not address by any source (%)	4.5		6.9		8.1
Needs a doctor for parent (%)	31.2		31.6		36.0
Need met by family/friends (%)	34.2		33.0		22.4
Need met by formal services (%)	67.9		69.0		76.4
Need not address by any source (%)	4.8		10.6		12.1
Needs information about child development (%)	48.1		37.8		31.9
Need met by family/friends (%)	54.0		52.5		46.7
Need met by formal services (%)	58.3		79.2		79.6
Need not address by any source (%)	7.8		4.5		3.9
Needs occasional childcare (%)	75.6		65.8		63.6
Need met by family/friends (%)	95.0		90.7		87.1
Need met by formal services (%)	7.2		11.0		13.4
Need not address by any source (%)	2.5		3.1		3.9
Needs regular childcare (%)	50.0		44.6		54.0
Need met by family/friends (%)	78.9		71.2		57.1
Need met by formal services (%)	26.6		25.2		50.6
Need not address by any source (%)	3.0		12.0		6.9
Needs individual counseling (%)	6.4		5.1		12.3
Need met by family/friends (%)	35.3		35.7		15.8
Need met by formal services (%)	50.0		64.3		63.2
Need not address by any source (%)	29.4		20.0		25.0

(table continues)

Table 4.9 (continued)

Measures	Welcome Home Visit Only	Welcome Home – Early Start Referrals	Ohio Works First – Early Start Referrals
Needs family counseling (%)	3.0	3.0	5.6
Need met by family/friends(%)	25.0	44.4	25.0
Need met by formal services (%)	50.0	22.2	71.4
Need not address by any source (%)	25.0	44.4	22.2
Needs help finding better or more stable housing (%)	15.5	25.9	42.6
Need met by family/friends (%)	52.5	36.4	30.3
Need met by formal services (%)	43.9	38.2	37.9
Need not address by any source (%)	19.5	37.7	42.0
Needs help getting basic supplies (%)	22.7	42.8	56.2
Need met by family/friends (%)	63.3	67.7	59.3
Need met by formal services (%)	38.3	48.4	52.3
Need not address by any source (%)	8.3	6.3	14.3
Needs transportation to or from appointments (%)	11.3	35.7	35.0
Need met by family/friends (%)	76.7	83.0	74.5
Need met by formal services (%)	16.7	20.2	28.3
Need not address by any source (%)	6.7	4.7	10.7
Needs help with legal issues (%)	5.6	7.7	10.5
Need met by family/friends (%)	13.3	45.5	20.0
Need met by formal services (%)	46.7	50.0	52.9
Need not address by any source (%)	40.0	13.0	35.3
Needs job training assistance (%)	3.4	12.8	23.5
Need met by family/friends (%)	11.1	18.9	12.9
Need met by formal services (%)	88.9	71.1	73.0
Need not address by any source (%)	0.0	21.1	23.7
Needs help managing money/paying bills (%)	10.5	16.8	23.0
Need met by family/friends (%)	74.1	68.0	54.1
Need met by formal services (%)	17.4	34.8	36.1
Need not address by any source (%)	21.4	16.0	21.6
Needs assistance with continuing their education (%)	13.2	30.5	26.7
Need met by family/friends (%)	30.3	25.0	27.5
Need met by formal services (%)	58.8	64.7	64.3
Need not address by any source (%)	25.7	20.9	25.6
Needs medical care for their baby (%)	33.2	37.0	38.3
Need met by family/friends (%)	24.4	14.4	14.3
Need met by formal services (%)	75.0	89.8	95.2
Need not address by any source (%)	4.5	3.6	4.8

Note: Numbers in parentheses are standard deviations. A two-tailed t-test was used to assess the statistical significance of each difference in characteristics between Welcome Home Only and Welcome Home-Early Start Referrals, and Welcome Home-Early Start referrals and OWF-Early Start Referrals. The percentage of participants having needs met by various sources do not add up to 100 percent because families might not have had any needs met or used more than one source to meet their needs.3 three months. The average age of the participants' babies at this time period was between 2 and 5 months.

Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

Table 4.10 Use of Health Care Services

	Welcome Home Visit Only		Welcome Home Early Start Referrals		Ohio Works First Early Start Referrals
Measures	*M*	Difference	*M*	Difference	*M*
Mean number of times taken baby to doctor	2.7 (1.5)	-.19	2.9 (1.6)	-.38	3.3 (2.8)
Proportion took baby to the doctor (%)	98.9		98.7		99.4
Most Frequent Reasons:					
Shots and check-up (%)	76.8		76.7		74.1
Cold/flu and respiratory problems (%)	7.3		8.3		8.2
Other (e.g. ear, digestive, skin problems) (%)	15.8		14.9		17.7
Mean number of times mother used doctor for herself	1.5 (1.1)	-.32 *	1.8 (1.6)	-.14	2.0 (2.3)
Proportion mothers went to doctor (%)	60.2		59.4		61.7
Most Frequent Reasons:					
Check-up (%)	58.5		52.6		58.8
Birth control & other reproductive issues (%)	10.1		24.8		24.7
Cold/flu and respiratory problems (%)	8.2		8.1		4.1
Other (e.g. testing, digestive, skin problems) (%)	23.2		14.6		12.4
Mean Number of times taken baby to ER	1.3 (.78) *	-.08	1.4 (.79)	-.02	1.4 (.76)
Proportion took baby to the emergency room (%)^	14.3		33.2		34.8
Most Frequent Reasons:					
Cold/flu and respiratory problems (%)	40.5		51.0		47.2
Digestive problems (%)	10.8		19.8		20.8
Ear infections (%)	16.2		4.2		5.7
Other (e.g. accidents, skin, urinary problems) (%)	32.4		25.0		26.5
Mean Number of times need medication for baby	1.5 (.97)	.00	1.5 (.95)	-.17	1.7 (1.2)
Proportion who needed medication for baby (%)^	39.5		51.0		59.9
Most Frequent Reasons:					
Cold/flu/respiratory and pain/fever reducer (%)	14.6		33.4		26.5
Ear problems (%)	27.2		13.3		9.6
Skin problems (%)	12.6		11.3		16.0
Other (e.g. thrush, digestive, vitamins) (%)	45.5		41.8		47.9
Mean Number of times mother needed medication	1.76 (1.2)	-.10	1.9 (1.4)	-.12	2.0 (1.3)
Proportion mothers needed medication (%)	40.2		43.0		40.4
Most Frequent Reasons:					
Birth control (%)	32.4		40.0		33.3
Vitamins (%)	8.6		8.0		12.7
Cold/flu and respiratory problems (%)	11.4		6.4		11.1
Other (e.g. pain, urinary tract, allergy/sinuses) (%)	47.7		45.6		42.9

Note: Numbers in parentheses are standard deviations. A two-tailed t-test was used to assess the statistical significance of each difference in characteristics between Welcome Home Only and Welcome Home - Early Start Referrals, and Welcome Home - Early Start referrals and OWF-Early Start Referrals.

Statistical significance levels are indicated as **p < 1 percent and *p < 5 percent. ^Chi-Square analysis indicated the frequencies are statistically different at $p < .05$ level.

There were no significant differences between these two comparison samples or the two Welcome Home service samples in the mean number of visits participants made to the doctor's office or to the emergency room regarding their child's health. However, there was a substantial difference in the proportion of the Welcome Home sample and the two Early Start referral samples that did use emergency room services for their child. About 14 percent of the Welcome Home only group reported using the emergency room to address such health concerns as ear infections or respiratory problems. In contrast, about one-third of the two Early Start referral groups reported going to the emergency room for the same reasons. These differences suggests that although a greater proportion of Early Start participants use the emergency room to access medical care, they do not use this resource more frequently than participants in the Welcome Home only group. Considering the notable differences among the three groups in terms of income, maternal age and family structure, this pattern is encouraging and could be related to involvement in Early Start or to the expanded availability of Medicaid and appropriate "medical homes" for children being promoted through ECI.

Program Implications:

At 3 months, virtually all Welcome Home recipients continued to have positive impressions of the service and their Welcome Home service providers. These new parents welcomed the opportunity to learn more about their infants in the privacy of their own homes and found the nurse to be a thoughtful and competent resource. Reflecting the program's emphasis on infant health and development, materials provided during the visit proved most useful in addressing these types of concerns. Participants found the visit and related material less useful in connecting them with other resources in the community or in helping them address concerns with their own physical and emotional well-being. This pattern suggests that the Welcome Home program model might benefit from a more explicit attempt to link participants with other new parents in the community or to foster a network of parent support groups, particularly among those not being referred on to Early Start.

Although the average number of needs or concerns identified at 3 months by respondents in all three groups was modest, virtually all of the respondents faced at least one parenting concern during this time. To address these needs, participants in the Welcome Home only group were significantly less likely to rely on formal community services, electing instead to draw on their informal systems of support (e.g., family members and friends). Again this pattern might suggest that the new parent population may be particularly receptive to efforts that expand their social networks. The more frequent use of formal services observed among the two Early Start populations is encouraging and may reflect the capacity of Early Start to effectively link families with needed resources. On the other hand, participants in both of Early Start referral groups, in contrast to the WH group, were more familiar with and more frequent consumers of local services at the time we conducted the initial interviews. Thus, these 3-month patterns may simply be an extension of a general tendency of families with fewer economic resources to turn to public agencies to meet their needs, particularly when these needs focus on obtaining concrete assistance such as regular child care, medical services and basic supplies for themselves and their children.

Although the average participant in all three groups reported that some of their needs were not addressed, the level of unmet needs was highest among the OWF-ES sample. We do not know if this shortcoming is a function of participants not being fully aware of available resources in their community or personal social network or if these existing resources are inappropriate or unable to meet a new parent's needs. Consequently, better meeting the needs of new parents might require either a stronger emphasis on disseminating service information or on building local service capacity. Capacity building may be needed particularly in the areas of counseling services, parent support groups, affordable housing, and financial planning.

Early Start: Service Utilization Levels

Although far from universal in their ability to alter parental and personal behaviors, intensive home visitation services are highly regarded among both practitioners and policy makers. Repeated evaluations suggest that home visitation programs are most likely to be successful among those families at moderate to high risk for abusive or neglectful behaviors who have weekly contact with service providers for a minimum of 6 months (Daro, 2000). With this benchmark in mind, the purpose of this section is to discuss, in greater detail, the service utilization patterns over time among all Early Start referrals, as well as among those families enrolled in our evaluation sample.

Service Levels Among All Early Start Referrals:

Table 4.11 summarizes the service experiences through June 2002 for six cohorts of children initially referred to Early Start between July 1999 and March 2002.[4] For all children referred during each period, we report their service experiences, including estimated duration and dosage, and average time between critical service points (e.g., the average time between referral into Interlink and referral out to an Early Start service provider; the average time between an agency receiving a referral and completing an initial home visit).[5] Since the primary focus of the evaluation is on the experiences of parents with newborns, we separated out the service experiences of those children who were under 6 months of age at the time their families were initially referred to Early Start.

In calculating the number of home visits provided during a given period, we report the number of visits provided each child rather than each family. This avoids a duplication problem inherent in the way home visits are documented by Early Start. For example, if a family has two children, a single Early Start visit will be attributed to each child in the family. If one were to compute the total number of visits to the family by adding the number of visits to each child, as we did in the interim report, it would appear that the family received two rather than one visit. Presenting the service data by individual child avoids this problem and provides a more conservative assessment of service dosage.

As reported in Table 4.11, a total of 15,441 infants, toddlers and young pre-school children, 69 percent of whom were under the age of 6 months, have been referred for Early Start services since program inception. Of these referrals, only 56 percent of all young children and 58 percent of all children reported before their 6-month birthday eventually received at least one home visit and completed an Individualized Family Service Plan (IFSP). Reflecting the multiple referral opportunities for Early Start, a notable percentage of infants (31%) experienced a second referral after receiving an initial home visit. For children over the age of 6 months, only 14 percent of all those receiving at least one home visit had a second referral to the program. Looking at the proportion of children with more than one referral across the six cohorts, it appears that the proportion of children involved in subsequent referrals to Early Start is declining. This decline may suggest greater efficiencies in the way in which the program responds to an initial report.

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[4] In order to maximize the post-referred observation period for all cohorts, we limited our sample selection for the most recent 6-month period to those who were referred during the first quarter of 2002, all of whom were observed for at least 3 months and half for at least 6 months. This approach provided more stable service estimates than if we had examined the experiences of all children referred to Early Start through June 2002.

[5] Because virtually every child who received a home visit completed at least one Individualized Family Service Plan (IFSP), we have not separated out that indicator in this analysis.

The number of referrals and the proportion completing an initial home visit has fluctuated over time. During the first half of 2002, however, the program experienced a significant drop in referrals. There are several reasons that might explain this decrease, such as declining birth rates, decrease in welfare caseloads, and the elimination of Prevention, Retention, and Contingency (PRC) Program funds. During this period, only 1,768 children were referred to Early Start, about half the number referred during the program's first operating period. This decline has been much less pronounced among infants less than 6 months in age. Overall, the number of children less than 6 months who have been referred to Early Start has declined only 35 percent in the past 2 years while referrals of children over 6 months is down 78 percent. As a result, the proportion of Early Start referrals that involve infants less than 6 months has substantially increased over time. During the first operating period, only 57 percent of all referrals involved infants less than 6 months old; in the first 6 months of 2002, this proportion had increased to 83 percent. To a certain extent, this population shift reflects the program's natural evolution. During its initial operating years, the majority of Early Start's target population (e.g., 0-3) had not had the opportunity to enroll in services at the time they were born and, therefore, were offered services at an older age. Today, many of the children under 5 years of age who were born in the county were offered Early Start at birth, allowing the program to focus greater attention on reaching all first-time births. As a result, Early Start is increasingly becoming a program that focuses on newborns, rather than toddlers and young pre-school children.

A dramatic decrease has occurred in the time between referral into Interlink and referral out to an Early Start service provider. Looking across the full operating period, the time between initial referral and assignment to an Early Start provider has dropped over 70 percent, from an average of 48 days in the first operating period to 14 days for those referred in the first quarter of 2002. A similar decrease has occurred in the time between the Early Start agency receiving a referral and the completion of the first home visit. Although this shift has accelerated in the most recent reporting period, the trend began in early 2000. At that time, Help Me Grow and Early Start providers began focusing on the importance of reducing the time between initial referral and first home visit as part of a general attempt to enhance service quality. For those enrolling during the first quarter of 2002, an initial home visit is now being completed within 25 days of receiving a referral, in contrast to an average of 114 days experienced during the program's first operating period in 1999.

Table 4.11 Service Experiences of Six Cohorts of Children Referred to Early Start between July 1999 and March 2002

	Early Start Referrals (*N*)	Received 1 or more Home Visit (%)	Received 1 or more Referral (%)	Time from referral in and out to provider (*M* in days)	Time from referral out to Home Visit (*M* in days)	Child age at first Visit (*M* in months)	Children with more than 1 Home Visit by 3 months (%)	Number of Visits to child by 3 mos. (*M*)	Children with more than 1 Home Visit by 6 months (%)	Number of Visits to child by 6 months (*M*)	Exited by 6 months (%)
All children											
Jul - Dec 1999	3388	47	27	48	114	12.9	27	3.5	37	7.3	47
Jan - Jun 2000	3275	54	27	47	84	10.2	36	3.9	46	7.9	43
Jul - Dec 2000	2308	57	27	42	69	8.3	37	3.8	50	8.0	43
Jan - Jun 2001	3002	62	27	32	40	6.1	50	4.3	58	8.5	47
Jul - Dec 2001	2628	60	23	36	33	6.1	48	4.0	58	8.0	47
Jan - Mar 2002[a]	840 [b]	57	19	14	25	4.4	54	5.1	57	7.1	45
Totals	15441	56	26	37	61	8.0	40	4.1	50	7.8	45
Children < 6 mos.											
Jul - Dec 1999	1918	50	34	48	111	5.2	30	3.5	40	7.3	42
Jan - Jun 2000	2167	56	34	48	84	3.8	37	3.8	48	7.8	39
Jul - Dec 2000	1683	58	32	44	71	3.4	37	3.7	50	7.9	42
Jan - Jun 2001	2256	64	32	32	41	1.8	52	4.1	60	8.4	46
Jul - Dec 2001	1994	61	28	36	33	1.5	49	3.9	59	8.0	44
Jan - Mar 2002[a]	700 [b]	57	22	14	26	1.0	55	5.1	57	7.1	44
Totals	10718	58	31	37	61	2.8	42	4.0	52	7.8	43
Children > 6 mos.											
Jul - Dec 1999	1470	42	18	48	117	24.9	24	3.5	32	7.3	53
Jan - Jun 2000	1108	50	14	44	84	23.9	33	4.1	43	8.1	52
Jul - Dec 2000	625	55	12	39	65	22.0	37	4.1	49	8.4	45
Jan - Jun 2001	746	55	14	31	36	20.5	44	4.7	52	8.9	51
Jul - Dec 2001	634	56	7	35	30	20.4	47	4.2	55	8.2	56
Jan - Mar 2002[a]	140 [b]	56	8	13	22	21.1	53	5.5	56	7.2	52
Totals	4723	50	14	35	59	22.1	35	4.4	44	8.0	52

[a] Although this cohort focuses only on children initially referred for service in the first quarter of 2002, the service experiences of these children were observed through June 2002.

[b] The total number of children referred through June 2002 were 1,768. Of these children 1,451 were < six-months and 317 were > six-months.

The most immediate benefit of this rapid turnaround is that children are now receiving their first home visit at a younger age. For children initially referred prior to their 6-month birthday, their average age at the time of their first visit dropped from 5.3 months to 1 month. A similar, although less dramatic trend, has occurred among those children initially referred to Early Start after their 6-month birthday. For these children, their age at the time of the first home visit has declined from 2.1 to 1.7 years of age. These trends, coupled with the increased proportion of referrals involving young infants, suggest that a growing proportion of Early Start recipients are successfully enrolling in services closer to the point of birth.

Although providing children an initial home visit and completing an IFSP is an important service goal, an equally important program performance indicator is the number of home visits children actually receive during their initial enrollment period. Under the Early Start model, children are to receive at least weekly visits for the first 3 months of enrollment, dropping down to monthly and bi-monthly visits as progress is made on the child's IFSP. Data presented in Table 4.11 suggest that Early Start service levels, although they are improving, appear to fall below these expectations. Over the first 3 months, the average number of home visits received by children who received an initial home visit (or become "enrolled" in the program) has increased from 3.5 for those referred in the initial operating period to 5.1 for those referred during the first quarter of 2002. For the most recent reporting period, these service levels have been slightly lower for children referred prior to their 6-month birthday (5.1 visits over three months) than for children initially referred after their 6-month birthday (5.5 visits over three months). At the 6-month observation period, the average number of home visits provided those children engaged in the program have fluctuated over the years. As indicated in Table 4.11, service levels at 6-months rose steadily during 2000 and the first half of 2001, increasing from 7.3 to 8.5, or to about 50 percent of expected service levels.[6] However, 6-month service levels began to decline beginning in the second half of 2001, dropping to 8.0 for those referred between June and December 2001 and to 7.1 for those referred in the first quarter of 2002 (or 40% of expected service levels). Although it is possible that this final figure will increase once we have the opportunity to observe the full cohort for a 6-month period, it is equally possible that final service levels will not exceed those reached during the last half of 2001.

Despite increases in the average number of completed home visits, most Early Start participants receive only a modest level of service. (i.e., one visit every 3 weeks for the first 6 months). Although this service level is comparable to what many other home visitation programs provide, it may not be sufficient to change attitudes and behaviors among families that face a number of personal and economic challenges. The potential of Early Start to achieve maximum success with these families is further limited by the high proportion of referrals that leave service within this initial 6-month period. Roughly half of all referrals and 20 percent of those who received at least one home visit, terminate services within 6 months. Although service and retention rates are somewhat higher with children who are initially referred to the program when they are 6-months of age or less, most Early Start referrals are receiving fewer home visits and remaining in the program fewer months than recommended by the county's program standards.

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[6] Expected level assumes weekly visits for the first 3 months, followed by bi-monthly visits for an additional 3 months or a total of eighteen visits over 6 months.

Service Levels Among Early Start Evaluation Sample:

In addition to offering a general overview of the service experiences of all participants, Early Start's administrative data documents the number of home visits provided children. However, the administrative data does not detail what occurs in those visits. In truth, Early Start, like all home visitation programs, involves a broader range of activities including regular assessments of the child, service referrals, and, in many instances, regular telephone contact. Such activities, while not always captured accurately by administrative reporting forms, can contribute to a parent's sense of involvement in the program and determine eventual outcomes. To capture these more subtle and important service dimensions, quarterly service summaries from the home visitors working with families included in both Early Start evaluation samples were obtained. These data also provided a reliable basis for comparing the extent to which the service experiences of families in our study parallel the experiences of all Early Start recipients being served in the county. Figure 4.6 summarizes the general referral process and enrollment level for Early Start referrals in the study. As this figure illustrates, a very small percentage (2%) of the 492 referrals who initially accepted study enrollment were never referred on to a specific Early Start service provider. Of those 482 new parents referred to an Early Start agency, 337 (or 70%) received at least one home visit before leaving the program and, therefore, might be considered as having "enrolled" in the program. Among this "enrolled" population, 95 percent remained in the program for at least 3 months, 74 percent remained enrolled for least 6 months, and 58 percent remained enrolled at least 9 months. These service enrollment figures are slightly higher (10 to 15%) than documented in the program's administrative data, suggesting that our evaluation sample includes a slightly higher proportion of referrals that actual received an initial home visit following formal referral to the program and who remained enrolled for at least 6 months.

Although initial enrollment levels are higher in our sample, the total number of home visits provided these participants is closer to the total service dosage reported among all Early Start referrals who receive at least one home visit. As summarized in Table 4.12, the average participant in our sample who accepted an initial visit received a total of 11.3 visits (*SD* = 6.9) over the 9-month observation period or about 54 percent of what might be expected over this period based upon the model's performance standards.[7] Looking across the three service quarters, those enrolled in services at the end of each quarter received an average of 3.4 visits during the first quarter, 4.4 visits during the second quarter, and 4.3 visits during the third quarter. Overall, Early Start families received between 77 and 81 percent of all scheduled visits over the three service quarters. Although the ratio of completed to scheduled home visits was initially higher among those families referred to Early Start by the Welcome Home nurse (73% versus 68%), a higher proportion of scheduled home visits were successfully provided to the OWF-ES sample during the second and third service quarters (75% versus 78%).

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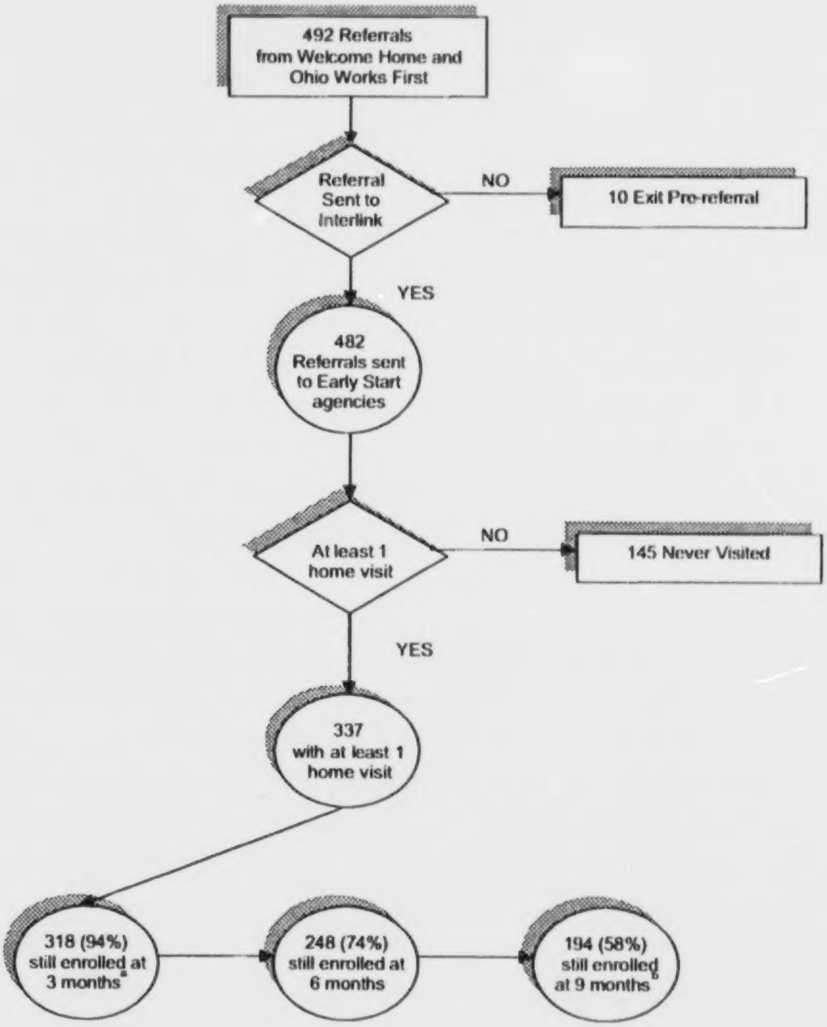
[7] Expected level assumes weekly visits for the first 3 months, followed by bi-monthly visits for an additional 3 months and then monthly visits thereafter, or a total of twenty-one visits over 9 months.


492 Referrals from Welcome Home and Ohio Works First
Referral Sent to Interlink
NO
10 Exit Pre-referral
YES
482 Referrals sent to Early Start agencies
At least 1 home visit
NO
145 Never Visited
YES
337 with at least 1 home visit
318 (94%) still enrolled at 3 months[a]
248 (74%) still enrolled at 6 months
194 (58%) still enrolled at 9 months[b]

[a] Missing = 2
[b] Missing = 11

Figure 4.6 Referral Process and Enrollment Level for Early Start Referrals Who Received At Least One Home Visit

Actual levels of contact between the home visitors and program participants are only partially reflected in the number of home visits. During a family's initial 3 months in Early Start, home visitors reported having at least weekly contact, either through in-person meetings or telephone conversations, with about half of these families. Although this contact level decreased the longer the family remained enrolled in the program, even at the 9-month reporting period home visitors reported that they continued to have weekly contact with almost one-third of these families. This level of contact appeared to a greater extent among the OWF-ES sample, although not statistically different, via chi-square analysis. For those participants still receiving services at the time of the third quarterly report, home visitors reported still having at least weekly telephone contact with about 45 percent of the OWF referrals but only with 30 percent of the Welcome Home referrals.

Collectively, these patterns may suggest that the OWF referrals that remain in the program receive, on average, a higher service dosage and may be more active in the program than the average WH-ES participant. Indeed, providers reported at the end of the third service quarter that a larger proportion of active participants referred by OWF compared to Welcome Home accomplished one or more of their IFSP goals (73% versus 62% respectively). This is particularly noteworthy given the higher levels of socio-economic risks and parenting concerns initially expressed by the OWF referral group.

Nature of the Service Relationship:

The quality of the home visitor-parent relationship has been found to play a role in explaining both service outcomes (Coady, 1993) and participant retention (McCurdy & Daro, 2001). To investigate the quality of the provider-participant relationship within Early Start, both the home visitors and study participants were asked complete the Helping Relationship Inventory (HRI) 3 months following referral to Early Start. The HRI is designed to measure the strength of the helping relationship between a service provider and program recipient (Poulin & Young, 1997; Young & Poulin, 1998). Both the participant and provider versions include ten items that address the structural component of the service interaction (e.g., the process for identifying the family's service goals, the clarity of the program's objectives, the methods for assessing progress, etc.) and ten items addressing the interpersonal component of service delivery (e.g., the extent to which the relationship was mutually satisfying, the emotional connection between participant and provider, the impact of the intervention on attitudes and feelings, etc.). Similar scores between the provider and participant suggest a more uniform or consistent view of the service relationship. In addition, the higher the absolute score for each respondent, the more positive the respondent's view of the relationship.

Table 4.13 presents the HRI results for the Early Start participants in our sample and their home visitors. As the top of this table illustrates, no significant difference in the total score between the two groups was observed at 3 months, suggesting that home visitors and participants generally have a similar perception of Early Start services. However, some differences were observed on the measure's structural subscale. On average, home visitors rated their Early Start clients as having a higher level of involvement in the relationship regarding how topics were discussed and decisions determined. On the other hand, Early Start participants rated the relationship with their providers lower regarding how problems were identified, goals

Table 4.12 Characteristics of Home Visits, IFSPs, and Family Concerns from Early Start Providers at Different Follow-up Periods for all Early Start Sample Participants

Measures	3 Months After Referral[a]		6 Months After Referral[b]		9 Months After Referral[c]		Total Averages for Study Period	
Total Sample Size	336		320		239			
Welcome Home-Early Start	221		210		155			
Ohio Works First-Early Start	115		110		84			
Mean number of visits scheduled in the preceding 3 months	4.5	(2.8)	7.7	(4.0)	5.6	(4.0)	5.7	(2.6)
Mean number of scheduled visits completed	3.4	(2.2)	6.0	(3.5)	4.4	(3.6)	4.3	(2.1)
Mean completion rate of home visits	81.3	(29.9)	77.1	(23.6)	77.9	(24.9)	77.8	(25.2)
Cumulative mean number of visits scheduled over study period (9 months)							14.4	(8.0)
Cumulative mean number of visits completed over study period (9 months)							11.3	(6.9)
Total visit completion rate (%)							80.0	(29.5)
Frequency of Telephone Contact								
None, no regular telephone access (%)	4.0		4.5		6.8		5.1	
None, no telephone attempt has been made (%)	.3		.3		.9		.5	
Telephone less than once a week (%)	38.2		52.4		57.5		49.4	
Telephone at least once a week (%)	54.4		38.6		31.7		41.6	
Telephone more than once a week (%)	3.1		4.1		3.2		3.5	
IFSP developed for engaged participants (%)	94.0		-		-		-	
One or more IFSP goals accomplished (%)	-		68.0		67.1		67.6	
IFSP revised over previous three-month period (%)	-		25.7		33.2		29.5	
Mean number of concerns for the family[d]	4.0	(2.1)	3.8	(2.0)	3.6	(2.1)	4.0	(1.9)
Mean number of concerns included in the IFSP	3.1	(1.6)	3.0	(1.4)	3.1	(1.6)	3.1	(1.4)
Mean number of topics assessed for progress	-		5.2	(2.5)	5.1	(2.3)	5.1	(2.3)
Mean level of progress on core topics (range 1-40)	-		15.8	(8.2)	15.9	(8.5)	15.6	(7.8)

Note: The source of this data is taken from the study's Early Start Providers Intake, Quarterly Form #1, and Quarterly Form #2 for Early Start referrals that had at least one home visit by the time the intake survey was completed (about three-months after referral). Total sample size is indicated, however sample varies greatly as a result of missing data on individual items across instruments. Numbers in parentheses are standard deviations.

[a] This figure is based on the average number of months ($M = 3.2$, $SD = 1.8$) between study enrollment and home visitors' intake form.

[b] This figure is based on the average number of months ($M = 5.9$, $SD = 1.8$) between study enrollment and home visitors' first quarterly update.

[c] This figure is based on the average number of months (M = 9.1, SD = 1.8) between study enrollment home visitors' second quarterly update.

[d] OWF families could also list concerns regarding self-sufficiency requirements. This item is not included in mean scores. When self-sufficiency is included the mean number of concerns for participants at 3 months is 4.1(2.1) and the mean number of concerns included in the IFSP is 3.1 (1.6). At 6 months the means are 3.9 (2.1) and 3.0 (1.4), respectively. At 9 months the means are 3.7 (2.1) and 3.1 (1.6), respectively.

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Table 4.13 Mean Differences of the Helping Relationship Scores at 3 Months[a]

Measures	Participants		Providers		Difference
		Between Participants and Providers			
Sample Size	264		264		
Helping Relationship Inventory (20-100)	72.2	(16.1)	74.0	(11.9)	-1.7
Structural Subscale	36.6	(8.1)	39.2	(6.1)	-2.7 **
Personal Subscale	35.7	(9.0)	35.4	(6.4)	.3

Measures	Enrolled		Not Enrolled		Difference
		Between Those Enrolled/Not Enrolled at 9 Months			
Sample Size	185		134		
Helping Relationship Inventory Intake (20-100)	73.0	(16.3)	65.4	(20.5)	7.6 **
Structural Subscale	36.8	(8.2)	33.7	(1.0)	3.3 **
Personal Subscale	36.3	(8.9)	33.0	(10.8)	3.4 **

Note: Numbers in parentheses are standard deviations.

[a] Three months is based on participants' 3-month interview and average number of months ($M = 3.2$, $SD = 1.8$) between study enrollment and home visitors' intake form.

Statistical significance levels are indicated as **p < 1 percent and *p < 5 percent.

articulated, plans developed, and progress was evaluated. Interpersonal dimensions of the relationship, (characteristics that are indicative of the interpersonal connection or how the participant feels attended to, understood, or comforted), showed no mean difference between the sample of Early Start participants and home visitors.

The bottom portion of the table compares these initial HRI scores for two groups of participants who received at least one home visit–those who had left the program within the first 9 months and those who were still enrolled at the end of this period. Those participants who remained in the program for at least 9-months reported higher levels of interpersonal connection, collaboration and clarity about their service relationship at the 3-month interview than those who dropped out of Early Start 2 and 8 months after an initial home visit. Those remaining in the program were more likely to have believed that they and their home visitor agreed on how to approach problems and expressed a greater degree of comfort and "connection" to their home visitor.

Service Engagement Patterns:

Unlike mandated services, voluntary prevention programs have no legal authority for retaining families. Families are free to decide if they will accept program services and, once accepting services, remain in the program. Initial research efforts suggest that the reasons for these decisions are neither consistent nor easily predicted. Theoretical frameworks that attempt to explain why families seek out and eventually use voluntary services find that this decision-making process is influenced by a variety of personal, programmatic, and contextual issues

(McCurdy & Daro, 2001). Although a more nuanced examination of these multi-level factors will be included in the March report, we initially examined this question by exploring those factors particularly salient in differentiating the length of time participants remained enrolled in the program and the number of home visits they received. To address these issues, we applied three multivariate techniques. First, we employed logistic regression to identify the set of factors that best explained differences between those who never received a visit (or never engaged) versus those who received at least one home visit. This allowed us to better specify the population that despite being referred to Early Start is not successfully connecting with a service provider.

Second, we examined program retention using survival analysis, a time-series procedure that provides a continuous view of the likelihood a particular outcome will occur over a defined observation period. In this case, the defined problem is termination from services and the observation period is 39 weeks. This procedure is particularly useful in cases, such as this, in which all sample participants have not been observed for a similar period of time.

Finally, we used ordinary least squares regression analysis to identify the set of factors that best explained differences in the number of home visits provided to those who formally "enrolled" in Early Start (i.e., received at least one home visit). Controlling for the effects of other factors, this approach allowed us to assess the linear relationship between service dosage on participant performance measures, holding other independent variables constant (i.e. demographics).

Logistic Regression on Home Visits:

As noted earlier, approximately one-third of the Early Start referrals in the evaluation sample failed to receive even an initial home visit. A series of bivariate analyses comparing the demographic profile and initial functioning of these mothers to those Early Start referrals who successfully enrolled in the program, as evidenced by at least one completed home visits, found a small number of significant differences. Table 4.14 summarizes these results. Overall, the two groups were similar on all of the demographic variables including maternal age, income, employment status, marital status, race, and number of prior births. In terms of personal functioning, those with higher CAP scores (greater likelihood for abuse) were significantly more likely to receive at least one home visit ($p = .04$). The relationship between average scores on the Readiness to Change measure approached significance ($p = .09$), with those demonstrating a greater willingness to change being more likely to receive at least one visit. No statistically significant differences were observed in the participant's knowledge of child development, parental competence, depression, or social support.

Based on these results, we constructed a logistic regression to examine the odds ratio of an Early Start referral with specific characteristics being successfully provided at least one home visit. The independent variables in this model include participant race (Non-African American and African American), Early Start referral status (OWF versus Welcome Home), parenting experience (first-time parent and those with prior births), baseline CAP score (those scoring less than 100, those scoring between 100 and 166, and those scoring above the 166 cut-off for high risk), and score on the Readiness to Change measure (those scoring at or above the mean - i.e., 58 - and those below the mean).

Table 4.14 Demographic and Baseline Performance Characteristics of Early Start Referrals Who Received At Least One Home Visit and Those Who Received Zero Home Visits

	Received at Least One Visit		Received Zero Visits		
Measures	*M* or %	*SD*	*M* or %	*SD*	*p*-value
Sample Size	337		155		
Total *N* = 492					
Baseline Characteristics					
Average Age (SD)	20.9	(4.3)	21.0	(4.3)	t = -.31
Teen Parents[a] (%)	48.1		51.6		χ^2 = .53
African American (%)	58.1		56.4		χ^2 = .13
White (%)	27.4		33.6		χ^2 = 1.88
Never Married (%)	88.8		90.1		χ^2 = .19
Less than high school (%)	45.5		49.0		χ^2 = .53
Unemployment (%)	64.6		61.3		χ^2 = .48
Low Income (Less than $10,000) (%)	58.2		57.3		χ^2 = .04
Mother Has Other Children (%)	32.0		27.2		χ^2 = 1.18
First Time Parent (%)	72.8		68.0		χ^2 = 1.18
Did Not Interview at Baseline (%)	2.9	(*n*=10)	9.4	(*n*=16)	χ^2 = 10.07**
Performance Measures (%)					
Readiness to Change	58.7	(6.4)	57.6	(7.2)	t = 1.63^
Knowledge of Infant Development (KIDI) Correct	63.2	(12.4)	64.3	(11.4)	t = -1.01
Baby Safety Checklist (BSC) Correct	87.2	(6.1)	86.2	(7.2)	t = 1.42
Social Support Behaviors (SSB)	41.6	(4.8)	41.4	(5.1)	t = .26
Social Support Index (SSI)	64.2	(8.2)	64.5	(8.9)	t = -.40
Parenting Sense of Competence (PSOC)	75.1	(8.6)	75.7	(8.6)	t = -.77
Depression Mood Scale (CES-D)	12.8	(9.0)	12.3	(9.0)	t = .64
Perceived Stress Scale (PSS)	15.3	(6.5)	15.3	(7.2)	t = -.03
Initial Total Parent Concerns (PC)	4.1	(3.2)	3.9	(3.3)	t = .57
Child Abuse Potential Inventory (CAP)	105.6	(78.0)	91.0	(67.3)	t = 2.13*

Note: Actual sample sizes for individual measures may change as a result of missing data. A two-tailed t-test or chi-square was used to assess the statistical significance of differences between Early Start Referrals who received at least one home visit and referrals who never received a home visit.

[a] Includes parents less than age 20 years.

Statistical significance levels are indicated as $^{**}p < 1$ percent, $^{*}p < 5$ percent, and $^{\wedge}p < 10$ percent.

In addition, the model includes an SES risk index based on a similar scale being used in the National Early Head Start Evaluation (Mathematica Policy Research, 2002). This index was constructed by awarding participants one point for every one of the following characteristics: less than a high school education, income below $10,000, unemployed, less than 20 years of age, and never married. It is important to note that this index, while accurately identifying those with a greater number of demographic markers commonly associated with an evaluated risk for child abuse and other negative outcomes, is not necessarily reflective of poor personal functioning. Wide variation exists in the parental capacity and interpersonal resources of young parents, those with limited incomes, and those raising children on their own. However, correlation coefficients between with this index and the baseline scores on our full battery of assessment measures identified several statistically significant relationships. Looking at the full Early Start referral sample, a participant's score on the SES index negatively correlated with the participant's knowledge of child development ($r = -.22$, $p < .001$), knowledge of baby safety ($r = -.09$, $p < .04$), and number of family strengths ($r = -.15$, $p < .001$)--and positively correlated with an elevated baseline CAP score ($r = .10$, $p < .02$). Thus, we believe the index provides at least a preliminary basis for assessing the extent to which Early Start is successfully engaging and retaining those new parents at higher risk. For purposes of this model, Early Start participants were divided into two groups – those with three or fewer risk markers and those with more than three risk markers.

As summarized in Table 4.15, this model, although approaching statistically significance ($p = .057$), did not explain a large proportion of the variance between those Early Start referrals who received at least one visit and those that did not. The only variable in the model with a statistically significant relation to home visits was the baseline CAP score. Those participants with the highest CAP scores (i.e., over 166) were over twice as likely as those with the lowest CAP scores to receive at least an initial home visit, and those with moderate CAP scores were over one and a half times more likely to receive an initial home visit. Despite the fact that this finding suggests that Early Start is successful in reaching those at greatest risk for physical child abuse (as measured by the CAP), it is important to note that the SES risk index was not a significant predictor nor did the overall model explain much of the variance between these two groups. Although not directly tested in this model, we did observe wide variation among individual Early Start agencies in their ability to successfully provide at least one home visit to the majority of the referrals they receive from the county. This pattern suggests that individual agency characteristics may play a particularly salient role in determining whether a family receives Early Start services. To a certain extent, this differential performance may be a function of some agencies receiving a higher proportion of new parents resistant to the intervention or some agencies having fewer internal resources to support staff in conducting the type of extensive outreach often needed to successfully enroll families disinclined to accept formal support. This relationship and the specific role individual workers may play in successfully engaging a family will be more fully explored in the March report.

Table 4.15 Logistic Regression Analysis of Demographic Characteristics, Parental Baseline Measures, and Early Start Referral Source on Ever Receiving an Early Start Home Visit

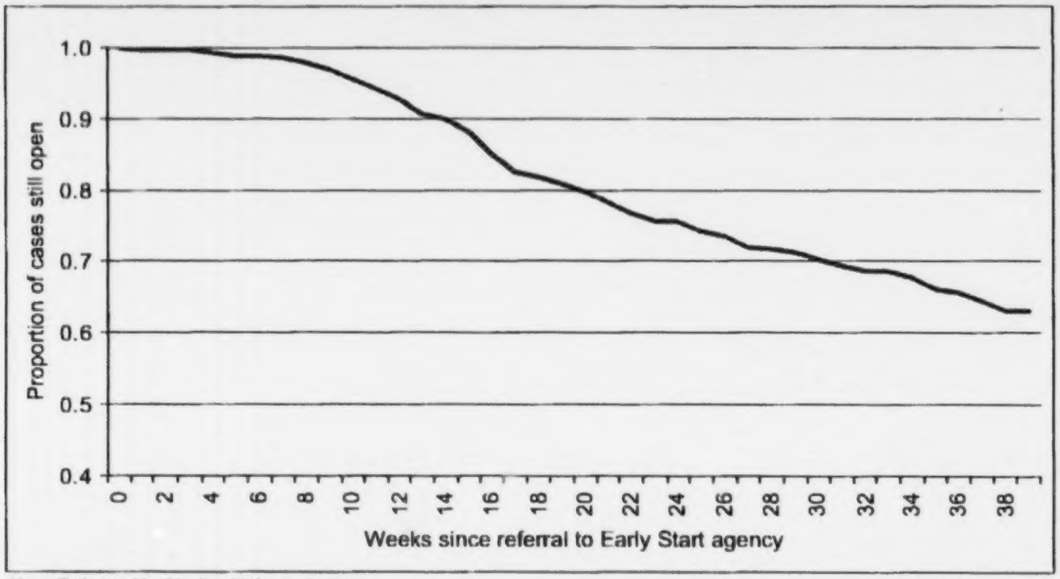
Independent Variables	Beta		Odds Ratio	95% Wald Chi-Square Confidence Limits	
				Lower	Upper
Intercept	.18	(.29)			
Referral Source					
Ohio Works First-Early Start Referral [a]	—	—	1.00	—	—
Welcome Home-Early Start Referral	.35	.25	1.41	.86	2.32
SES Risk Index					
0-3 Risk Markers [a]	—	—	1.00	—	—
4-5 Risk Markers	-.22	(.22)	.80	.52	1.23
Race					
Non-African American [a]	—	—	1.00	—	—
African American	.16	.21	1.18	.79	1.77
Parenting Experiences					
Study Child not first birth [a]	—	—	1.00	—	—
Study Child first birth	.17	.26	1.19	.71	1.97
Readiness to Change					
Score < 58 [a]	—	—	1.00	—	—
Score > or = 58	.13	.20	1.14	.77	1.70
Baseline CAP Score					
CAP < 100 [a]	—	—	1.00	—	—
CAP 100 to 166	.52	.25	1.68*	1.02	2.77
CAP > 166	.76	.30	2.14*	1.19	3.83

n = 480
Model X^2 = 13.77
df = 7
p = .0572

Note: Beta coefficients are standardized estimates. Standard errors are in parenthesis.
Risk markers were defined as a teen parent, income under $10,000, never married, education less than high school, and unemployed.
[a] Excluded category reference group.
Significance levels are indicated as **$p < 1$ percent and *$p < 5$ percent.

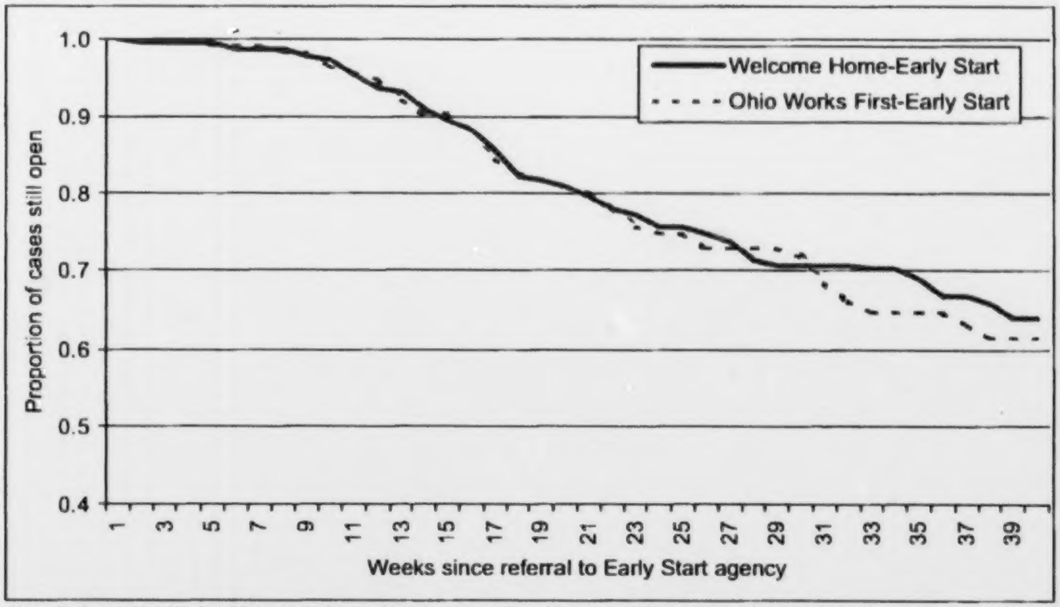
Survival Analysis of Program Enrollment:

Looking only at those Early Start referrals who received at least one home visit, we used the Kaplan-Meier method to plot the survival probabilities that participants would remain enrolled in Early Start at various points in time. As illustrated in Figure 4.7, the most rapid rate of decline in program involvement among those who receive at least one home visit occurs between 15 and 24 weeks following enrollment. This overall pattern was true for various subpopulations we examined in terms of referral source, race, and SES risk status as measured by our index. As Figure 4.8 indicates, no significant differences were observed at any point in the rate of program termination between families referred to Early Start by Welcome Home versus OWF. All points on the curve fell within the 95 percent confidence interval. In contrast,



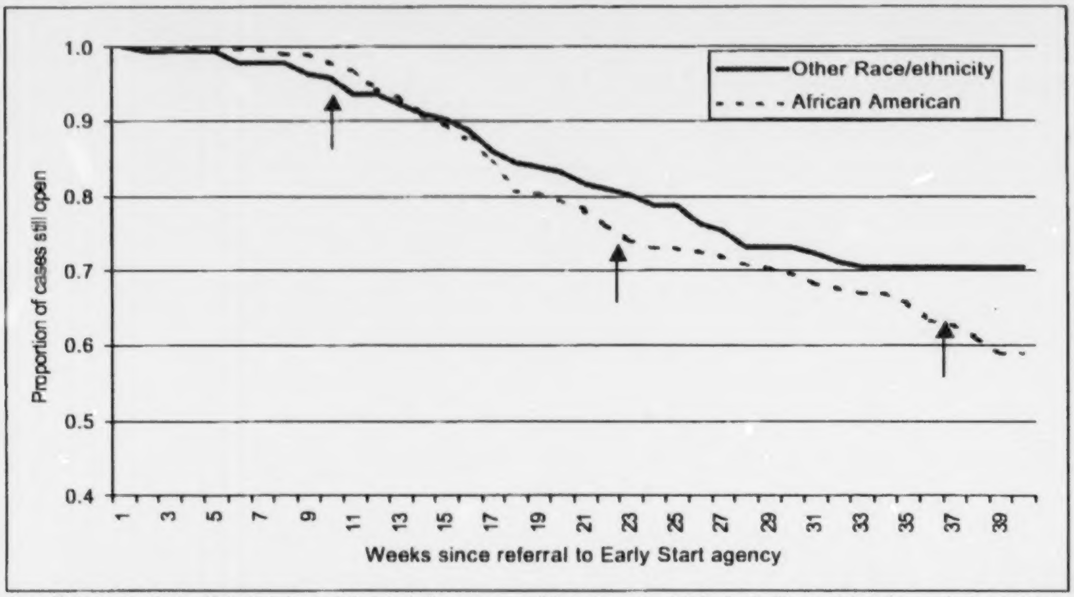
Note: Estimated by Kaplan-Meier techniques.

Figure 4.7 Survival Function for Length of Program Involvement for All Early Start Referrals Who Received At Least One Visit



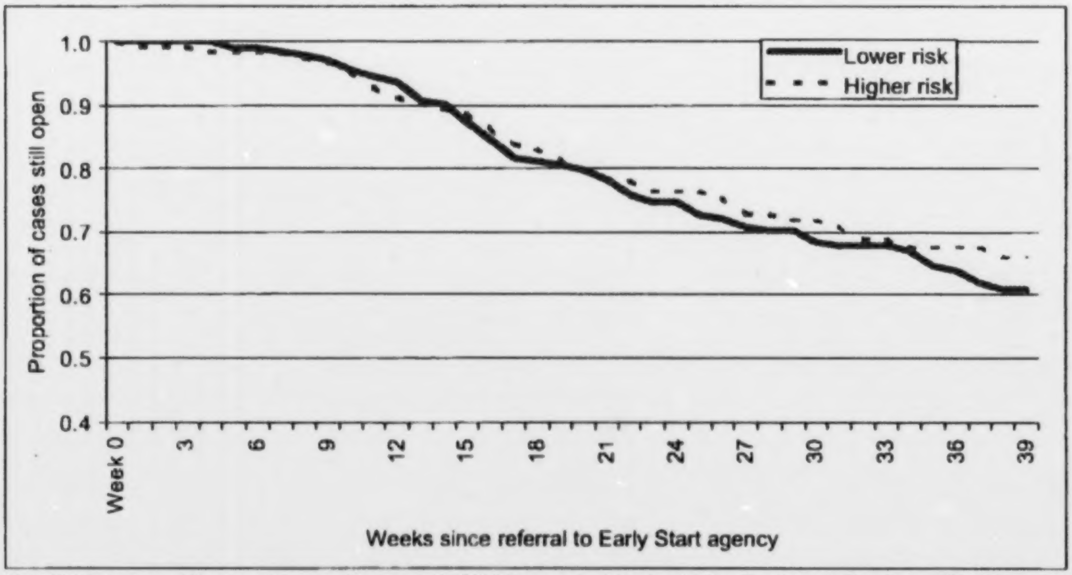
Note: Estimated by Kaplan-Meier techniques. Using a ninety-five percent confidence interval, no statistically significant points were found. The generalized Log-Rank statistic, chi-square is .278 and is not significant.

Figure 4.8 Survival Function for Length of Program Involvement for Early Start Referrals Who Received At Least One Visit by Referral Source



Note: Estimated by Kaplan-Meier techniques. Using ninety-five percent confidence intervals, statistically significant points in time are indicated with an arrow. The generalized Log-Rank statistic, chi-square is 1.992 and is not significant.

Figure 4.9 Survival Function for Length of Program Involvement for Early Start Referrals Who Received At Least One Visit by Race



Note: Risk factors were defined as a teen parent, income under $10,000, never married, education less than high school, and unemployed. Lower risk cases were those with three or less of the risk factors. Higher risk cases were those with four or five of the risk factors. Estimated by Kaplan-Meier techniques. Using ninety-five percent confidence intervals, no statistically significant points in time were found. The generalized Log-Rank statistic, chi-square is .237 and is not significant.

Figure 4.10 Survival Function for Length of Program Involvement for Early Start Referrals Who Received At Least One Home Visit by Socio-Economic Risk

the curve presented in Figure 4.9 suggests that some differential attrition by race occurred in the early months of enrollment with non-African American participants showing a greater tendency to leave services during this period. At the 6-month enrollment point, however, this trend reversed, with African Americans experiencing a somewhat higher termination rate.

Several early intervention programs have demonstrated difficulty in enrolling and retaining participants with high-risk SES profiles (Chaffin, Bonner, & Hill, 2001; Duggan et al., 1999; Mathematica Policy Research, 2000). In contrast, Early Start retains a greater proportion of this population longer than it retains those participants with a fewer number of SES risk factors, as summarized in Figure 4.10. However, both survival curves remained within the 95 percent confidence interval, suggesting that this difference in service duration between the two groups is not significant. Indeed, the proportion of participants still enrolled in the program at 6 months (32 weeks) was virtually identical for those with one to three of these SES risk markers versus four or five risk markers.

Table 4.16 presents the primary reasons home visitors chose for terminating services to participants who left Early Start at different points of time. As this table illustrates, the majority of those leaving Early Start appear to be "passive refusals" with services terminating because the home visitor was unable to locate or make contact with the family. Although 18 percent of the Early Start participants who left the program within 3 months of enrollment specifically refused any additional services, this reason became less prevalent over time. In contrast, other reasons for service termination, such as moving out of the area, referral to early intervention services, or a change in employment or school status became more common over time.

Table 4.16 Reason for Termination by Providers for Early Start Participants who Received at Least One Home Visit

Measures	3 Months After Referral Received One Visit	6 Months After Referral Received One Visit	9 Months After Referral Received One Visit
Sample Size	16	73	42
Major reasons providers' cited for exit (%)			
Unable to locate (%)	75.0	60.3	78.6
Participant didn't want additional services (%)	18.8	11.0	4.8
Moved out of program area (%)		4.1	11.9
Change of custody (%)	6.3	2.7	2.4
Change in employment or school status (%)		8.2	2.4
Referred to early intervention (%)		2.7	
Other (%)		11.0	

Note: Sample size is based on valid data. Actual sample sizes for those terminated and received at least one visit are illustrated in Figure 4.6. They are: at 3 months = 17 (2 missing); at 6 months = 89; and at 9 months = 132 (11 missing data).

Multiple Regression on Number of Visits:

The final analysis we did with respect to service engagement was to examine the extent to which participant demographic characteristics or initial personal functioning predicted the number of home visits a participant received. To test predictive relationships, we conducted ordinary least squares regression with the number of home visits serving as the dependent variable. The independent variables used in this model mirrored those used in the logistic regression with the exception of the way we manipulated the scores on the SES risk index, CAP, and Readiness to Change measure. In this analysis, all of these measures were entered as continuous variables. The results of this analysis are summarized in first column of Table 4.17.

Table 4.17 Predictive Relationships of Total Number of Home Visits (HV) on Demographic Characteristics, Parental Baseline Measures, Early Start Referral Source, and Helping Relationship Inventory (HELP)

	Received at least 1 HV			**At least 1 HV and HELP**		
Independent Variables	*Beta*		*t*-value	*Beta*		*t*-value
Intercept	10.49	(3.56)	2.95**	8.83	(3.77)	2.34**
Referral Source						
OWF Referral [a]	—	—	1.00	—	—	1.00
Welcome Home Referral	-.63	(.97)	-.65	-.18	(1.11)	-.17
SES Risk Index	-.65	(.32)	-2.06*	-.53	(.34)	-1.55
Race						
Non-African American [a]	—	—	1.00	—	—	1.00
African American	-1.69	(.78)	-2.17*	-1.40	(.83)	-1.69
Parenting Experiences						
Study child not first birth [a]	—	—	—	—	—	1.00
Study child first birth	—	—	—	1.07	(1.06)	1.01
Number of Births						
Study Child not first birth [a]	—	—	1.00	—	—	—
Study Child first birth	1.35	(.98)	1.38	—	—	—
Baseline Readiness to Change	.03	(.06)	.51	.03	(.06)	.52
Baseline CAP Score	.01	(.01)	2.47**	.01	(.01)	2.73**
Helping Relationship Inventory						
Below average (70) [b]	—	—	—	—	—	1.00
At or above average (70)	—	—	—	2.86	(.56)	3.33**
n =		336			264	
R^2 =		.056			.095	
Adjusted R^2 =		.038			.070	
F Value =		3.14**			3.83**	

Note: Beta coefficients are standardized estimates. Standard errors are in parenthesis.
[a] Excluded category reference group.
Significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

The full model, while statistically significant (p = .005), explained approximately 5.5 percent of the variance (adjusted R^2 = 3.8%) in the number of home visits. The results were similar to the patterns observed in the logistic regression and, to a lesser extent, the survival analysis. CAP score is a statistically significant predictor of receiving one home visit, controlling for other variables, however it is important to noted the small magnitude of the relations (B =.01, p < .01). SES and race also had significant predictive relationships to receiving a home visits that were large in magnitude. African Americans were significantly less likely to receive a greater number of home visits than non-African Americans. These patterns suggest that the Early Start service system is doing both a more effective job in initially engaging families with higher CAP scores and providing these high-risk families, once enrolled, a higher service dosage. Although it is not presented in this model, a preliminary examination of individual agency performance did not detect a significant or systematic difference across Early Start service agencies in terms of the average number of home visits provided once we controlled for participant characteristics. In other words, Early Start providers appear to be equally likely to deliver a greater number of home visits to those at highest risk for physical abuse as measured by the CAP and to provide fewer home visits to those new parents with the greatest number of SES risk markers.

In order to examine the possible influence of service quality, we expanded the multiple regression model to include the participant's score on the Helping Relationship Inventory, dividing the sample into those who rated the quality of their relationship with their home visitor at or above the sample norm and those who rated the relationship below this average. This analysis was limited to the 264 participants who completed the HRI at the time of the 3-month interview.

As summarized in second column in Table 4.17, the introduction of this variable almost doubled the proportion of explained variance and reduced the significant predictive influence of both the race and SES risk index variables. Overall, the model including the HRI score explained 9.5 percent (adjusted R^2 = 7%) of the total variance in the number of home visits. In addition, those scoring at our above the average HRI score were significantly more likely (p < .001) to receive a greater number of home visit than those who provided a less favorable rating of the relationship. As in the previous model, baseline CAP scores continued to have predictive ability with respect to the total number of home visits, with those having the highest CAP scores being more likely to receive a greater number of services.

Although the overall performance of this sample of Early Start recipients suggests that the program is not delivering the service dosage identified by the model's performance standards, the predictive abilities of the HRI suggest that different service delivery methods and potentially, worker characteristics and style, can result in providing participants a greater number of home visits, particularly with those presenting an elevated risk for physical abuse. This relationship, as well as possible provider and program-level variables will be further examined in the March report through the use of hierarchical linear modeling (HLM) techniques. HLM is a statistical procedure that is designed to investigate relationships between variables that are measured at different levels in a hierarchical or nested structure. Specifically, HLM enables the regression of variables at one level (e.g., participant) on each other as well as on higher-level variables (e.g., service provider or program levels). We are particularly interested in using this approach to identify any home visitor characteristics that are highly associated with a greater number of home visits and the extent to which workers that share these characteristics are more highly concentrated in specific types of agencies.

Program Implications:

The evaluation results present a mixed picture of Early Start's success in engaging new parents. On the one hand, the program is successfully engaging a wide range of families, including many that carry the demographic markers of high risk. And newborns and their parents are being provided home visitation services much earlier in the infant's life than had been true in 1999. Today, the average time between referral in and out of Interlink is 2 weeks, and the average time between referral to an Early Start service agency and first home visits is less than 1 month. As a result, the average infant who is referred prior to the 6-month birthday or when her mother is pregnant will receive an initial home visit within the first month of life.

For those who are successfully provided at least an initial visit, the average Early Start recipient can expect to receive between 8.3 and 8.7 home visits during the first 6 months they are in the program, or about 50 percent of the service levels recommended by the model. This 50 percent service dosage is comparable to what most home visitation programs are able to achieve with their respective target populations and underscore the difficulty programs face in delivering a volunteer home visitation services to families that often have chaotic life styles and multiple risk factors. Whether, this level of service is sufficiently robust to achieve measurable change in the attitudes and behaviors of new parents facing the greatest difficulties is not yet know.

Less encouraging is the fact that one out of every three referrals to Early Start will never have a single home visit. Like those successfully enrolling in the program, this group of unserved new parents also is diverse and includes roughly equal proportions of families with various demographic markers of risk, personal stress, and limited inter-personal functioning. Our analyses suggest that those families not receiving an initial home visit may not be the families at highest risk for maltreatment. Indeed, those new parents with the highest CAP scores (i.e., over 166) are twice as likely to be provided at least an initial home visit as those new parents with the lowest CAP scores. Somewhat surprisingly, those in the OWF-ES referral group were less likely to receive at least one visit once we controlled for SES risk status and initial CAP scores. While not significant, this trend does suggest less variation in the service acceptance rates between these two referral groups than one might have expected given the specific emphasis placed on Early Start enrollment by OWF caseworkers. The failure to enroll a notable proportion of those at lower risk appears to be a function of differential agency performance, with some Early Start providers having very limited success in engaging these families in service. Although many of the workers in these agencies indicated an inability to locate the family as the reason for service termination, it is interesting to note that our evaluation team successfully interviewed over 90 percent of the 155 individuals that Early Start agencies were unable to contact or draw into the program.

Once a family is receiving services, the relationship between risk and service dosage depends upon how one defines risk. As indicated in our analyses, those receiving a greater number of home visits tended, on average, to have higher baseline CAP scores. However, those with the greatest number of socio-economic risk markers and African Americans were significantly more likely to receive fewer home visits during our 9-month observation period.

These findings, while somewhat counterintuitive, suggest that the assessment of risk is complex and that Early Start, while successful in engaging parents that face certain psychological challenges in caring for their children, appears less successful in attracting and retaining those parents facing the most stressful economic circumstances. More extended analyses will be needed to unpack these multifaceted constructs.

Those referred to the program through OWF demonstrated a slight, but not significant, tendency to receive a greater number of home visits, a pattern supported in the data we obtained from the Early Start home visitors. This trend may suggest that once OWF families receive a home visit and establish a relationship with a specific service provider, their array of needs and tendency to rely on formal supports to meet these needs may be particularly well suited to the Early Start service model. Indeed, the predictive ability of the HRI with respect to service dosage underscores the importance Early Start recipients, particularly those who are heavily involved with the public welfare system, place on services offering them an opportunity for mutual case planning and supportive relationships.

11-Month Findings

To document the experiences of new parents during their infants' first year of life and to capture any potential changes as a result of Welcome Home and Early Start interventions, the evaluation design included in-person interviews with all study participants 11 months after their completion of the first study interview. This section discusses some of the results from this interview data for 50 percent of the sample that completed the 11-month interview by June. Although only a partial sample, those with completed interviews are representative of the full sample in terms of demographic characteristics, initial functioning, and Early Start service experiences. However, small sample sizes at this point, particularly within subgroups, may limit our ability to detect significant change. This may result in some key individual and service characteristics not being appropriately identified as having significant explanatory power in predicting change. Thus, the findings presented in this section should be considered preliminary and merely suggestive of those areas in which Early Start services might influence parenting practices.

Change Among the Welcome Home Only Sample:

At the time of the Welcome Home visit, our data suggested that the nurses appropriately referred a high proportion of children at risk for poor developmental outcomes into Early Start. On average, the Welcome Home only sample had more positive baseline scores than those families referred on to Early Start on all of our performance measures. Only a small number of new mothers with very elevated CAP and CES-D scores were not detected through the existing Welcome Home assessment screen.

The 3-month telephone interviews, continued to confirm that the average Welcome Home only participant presented a low risk for child abuse or other negative outcomes. As a group, these new mothers used an appropriate array of health and social services. They drew frequently on their informal service networks of family members and friends to meet their basic needs and to obtain necessary childcare.

At the 11-month observation period, we found continued stability and strong performance within this new parent sample. As summarized in Table 4.18, the average Welcome Home only participant increased her score on the study's two measures of child development knowledge, improved her sense of confidence as a parent, has fewer parenting concerns, and received increased social support in a number of areas. The only measure in which this group experienced a significant negative trend was on the Social Support Index (SSI) suggesting the average participant in this group might of felt less emotional connection and sense of belonging with family members and friends than she had at the time her infant was born. This pattern is consistent with what others have observed among new parents during their child's first year of life (Daro, 2000; Guterman, 2001; McCurdy & Jones, 2000).

Table 4.18 Change Over Time in Personal Performance Measures for the Welcome Home Only Recipients[a]

	Welcome Home Sample				
Outcomes	Initial M		Final M		Difference
Knowledge of Infant Development (KIDI) Correct	70.9	(.13)	74.0	(.11)	-.03**
Baby Safety Checklist (BSC) Correct	88.2	(.05)	89.0	(.04)	-.01*
Parent Concerns	3.34	(2.9)	2.8	(2.6)	.55*
Parenting Sense of Competence (PSOC)	75.3	(8.9)	77.9	(8.3)	-2.6**
PSOC-Skill/Knowledge	33.3	(5.2)	35.3	(5.0)	-2.0**
PSOC-Valuing/Comfort	42.0	(5.4)	42.6	(5.0)	-.55
Social Support Behaviors (SSB)	42.8	(3.2)	43.2	(3.2)	-.36*
SSB Practical Help	6.9	(.5)	6.9	(.6)	-.01
SSB Financial Assistance	7.8	(.8)	7.8	(.7)	-.03
SSB Advice Guidance	11.8	(.9)	11.9	(1.0)	-.08
SSB Emotional	9.7	(.89)	9.9	(.83)	-.13*
SSB Socializing	6.7	(.8)	6.8	(.7)	-.11*
Social Support Index (SSI)	69.8	(8.0)	68.4	(7.5)	1.4**
Perceived Stress Scale (PSS)	12.9	(5.9)	13.5	(6.5)	-.65
Depression Mood Scale (CES-D)	7.9	(7.2)	8.3	(8.6)	-.42
Child Abuse Potential Inventory (CAP)	73.3	(56.7)	74.2	(74.7)	-.89

Note: Numbers in parentheses are standard deviations.

[a] Only a partial sample is represented in this report for the final interview; the final sample is 157 Welcome Home Only.

Statistical significance levels are indicated as **p < 1 percent and *p < 5 percent.

We had anticipated looking at the differential performance on these measures for families within this sample who presented varying levels of risk at intake as a way of further validating the Welcome Home screening system. Because, only 11 of the 157 Welcome Home only sample included in this analysis had baseline CAP scores above 166, it is difficult to develop any statistical comparisons between high and low-risk groups within this sample population. Although we found that these eleven high-risk participants did not show any significant improvements over time in their parental capacity or personal functioning, it would be inappropriate to draw any conclusions based on this finding due to the small sample size. This issue will be revisited in the March 2003 report once we have obtained 11-month assessment data on the full sample.

Change Among the Early Start Service Population:

Table 4.19 summarizes the change we observed in personal performance measures for each of the two Early Start referral groups who received at least one home visit. In terms of positive change, both Early Start groups demonstrated the same significant decrease in the mean number of parenting concerns observed within the Welcome Home only group. In addition, those in the Welcome Home-Early Start (WH-ES) referral group also shared the Welcome Home only group's significant improvement in parental competence, as measured by the Parenting Sense of Competence Scale (PSOC), a change that was not significant among the Ohio Works First-Early Start (OWF-ES) referral group. As with the Welcome Home only group, the average participant in both of the Early Start referral groups reported a significant decrease in emotional connection and sense of belonging with family members and friends. The population of WH-ES who had received at least one home visit also demonstrated a significant increase in their mean level of perceived stress and CAP score. In both instances, these negative trends were substantially more pronounced within the WH-ES sample than within the OWF-ES referral sample.

To determine the extent to which Early Start enrollment might influence the magnitude of change in various domains, we first examined the patterns of change observed between those Early Start referrals in our sample that received an initial home visit and those that never received a home visit. As summarized in Table 4.20, a more positive pattern of findings did emerge among those who received at least one Early Start visit, particularly in terms of increased parental competence and a reduction in the number of parent concerns. Modest gains in knowledge of infant development and baby safety were also observed in both groups. However, both the served and non-served groups presented a reduced sense of emotional connection to others in their informal support network. While the average CAP score in both groups increased between the two observation points, this increase was twice as large for those referrals that never received a home visit than for those who received at least one home visit. Although fewer significant changes were observed in the non-visited group, the patterns of findings were similar across both groups suggesting that enrollment in Early Start services may have only modest impacts in altering the attitudes and behaviors of new parents in several domains.[8]

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[8] Again, when data is available on the full sample, the magnitude of change within both groups may be altered.

Table 4.19 Change Over Time in Personal Functioning for Early Start Recipients[a] Who Received At Least One Home Visit

	Welcome Home-Early Start			Ohio Works First-Early Start			Total Early Start		
Outcomes	Initial *M*	Final *M*	Difference	Initial *M*	Final *M*	Difference	Initial *M*	Final *M*	Difference
Knowledge of Infant Development (KIDI) Correct	62.3 (12.4)	64.0 (12.0)	-.02^	66.2 (11.5)	68.0 (11.7)	-.01	63.7 (12.2)	65.0 (12.0)	-.02*
Baby Safety Checklist (BSC) Correct	87.1 (6.2)	88.0 (5.8)	-.01	88.6 (4.3)	88.0 (4.3)	.00	87.6 (5.7)	88.0 (5.4)	-.00
Parent Concerns	3.5 (2.9)	2.9 (2.6)	.57*	5.0 (3.3)	4.0 (3.1)	1.00*	4.0 (3.1)	3.3 (2.8)	.72**
Parenting Sense of Competence (PSOC)	75.4 (8.4)	76.9 (8.3)	-1.50*	74.3 (8.3)	75.2 (9.8)	-.89	75.0 (8.3)	76.3 (8.8)	-1.29*
Social Support Behaviors (SSB)	42.0 (3.4)	42.5 (3.1)	-.48^	41.4 (5.9)	41.7 (5.8)	-.33	41.8 (4.4)	42.2 (4.2)	-.43
Social Support Index (SSI)	65.0 (7.3)	62.3 (7.6)	2.72**	62.4 (7.9)	60.4 (7.2)	2.01*	64.1 (7.6)	61.6 (7.5)	2.48**
Perceived Stress Scale (PSS)	14.4 (6.3)	15.8 (7.2)	-1.34*	17.5 (5.7)	17.0 (6.6)	.47	15.5 (6.3)	16.2 (7.0)	-.72
Depression Mood Scale (CES-D)	12.2 (9.3)	12.2 (9.5)	.00	14.8 (8.8)	13.9 (10.3)	.84	13.1 (9.2)	12.8 (9.8)	.29
Child Abuse Potential Inventory (CAP)	95.5 (74.8)	109.2 (95.2)	-13.62*	131.9 (82.5)	136.9 (85.6)	-4.99	108.0 (79.2)	118.6 (92.7)	-10.67*

Note: Numbers in parentheses are standard deviations.

[a] Only a partial sample is represented in this report for the final interview; the final sample size is 135 Welcome Home-Early Start referrals and 70 Ohio Works First-Early Start referrals.

Statistical significance levels are indicated as $^{**}p < 1$ percent, $^{*}p < 5$ percent, and $^{\wedge}p < 10$.

Table 4.20 Mean Differences between Initial Scores and Final Scores for All Early Start Referrals by Whether They Received a Home Visit or Not

Outcomes	Received At Least One Home Visit					Received At Least No Home Visits				
	Initial *M*		Final *M*		Difference	Initial *M*		Final *M*		Difference
Knowledge of Infant Development (KIDI) Correct	63.6	(12.2)	65.5	(12.0)	-.02*	64.5	(9.9)	66.6	(10.4)	-.02
Baby Safety Checklist (BSC) Correct	87.6	(5.6)	87.9	(5.4)	.00	86.5	(6.6)	89.1	(4.0)	-.03**
Social Support Behaviors (SSB)	41.8	(4.4)	42.2	(4.2)	-.43	41.7	(3.9)	42.2	(4.4)	-.49
Social Support Index (SSI)	64.1	(7.6)	61.6	(7.5)	2.48**	65.1	(10.5)	62.3	(8.7)	2.80**
Parenting Sense of Competence (PSOC)	75.0	(8.4)	76.3	(8.8)	-1.29*	76.3	(9.3)	76.9	(9.2)	-.61
Depression Mood Scale (CES-D)	13.1	(9.2)	12.8	(9.8)	.29	11.5	(9.0)	11.8	(10.6)	-.36
Perceived Stress Scale (PSS)	15.5	(6.37)	16.2	(7.1)	-.72	15.4	(7.4)	14.9	(7.0)	.53
Initial Total Parent Concerns (PC)	4.0	(3.1)	3.3	(2.8)	.72**	4.3	(3.2)	3.7	(3.0)	.65
Child Abuse Potential Inventory (CAP)	107.95	(79.2)	118.6	(92.8)	-10.67^	93.4	(72.2)	114.7	(104.3)	-21.27*

Note: Numbers in parentheses are standard deviations.

Sample size is 205 for those with at least one home visit and 66 for those with no home visits.

Statistical Significance levels are indicated as **p < 1 percent, *p < 5 percent, and ^p < 10 percent.

Finally, we conducted a series of multiple regressions to determine if the number of home visits would explain any of the variance on our assessment measures after we controlled for demographic and initial functioning differences within the sample. The results of these analyses are presented in Table 4.21. As the data on this table indicates, a greater number of home visits were related to more positive scores on all of our outcome measures with the exception of the skills and knowledge subscale of the Parenting Sense of Competence Scale (PSOC). Although all of these models explained a substantial and significant proportion of the variance in each measure, virtually all of the explanatory power rested in the participant's baseline score on the measure and, to a lesser extent, the participant's baseline CAP score and her initial willingness to change. Somewhat counterintuitive, the more willing a participant was to admit needing assistance with her parenting at the time services were offered, the less likely she was to have more positive outcomes on all but the two knowledge assessment measures. A participant's initial readiness to change score was a significant negative predictor of the participant's final total and subscale scores on the PSOC and approached significance in predicting the participant's perceived level of stress. New parents who present a greater willingness to change and a greater interest in learning more about how to care for their infant at the time Early Start services are offered may have higher expectations for services and their own ability to change over time. If these expectations are not realized through service involvement, this initial positive attitude may contribute to increased stress and a diminished sense of parental competence.

Once we controlled for a participant's SES risk and initial functioning, the number of home visits demonstrated significant predictive power in reducing a participant's overall risk for physical abuse (as measured by the CAP) and improving her value and sense of comfort in caring for her child. The number of home visits also approached statistical significance in predicting depressive symptoms at 11 months, as measured by the CES-D. While the number of home visits was not a significant predictor in any of the other regression models, it is possible that a stronger pattern of findings will be observed once the full sample is available for analysis. In addition to increasing our power to detect significant differences among all those offered Early Start services, larger samples will allow us to conduct the type of subsample analyses generally more productive in identifying positive effects within prevention programs. Specifically, the full sample will provide greater opportunity to examine differential performance among new parents with various demographic characteristics (e.g., teens versus non-teen parents, first time mothers versus those with multiple children) as well as different service experiences as determined by their relationship with their home visitor. Finally, the full sample will allow us to conduct multivariate analyses comparing the observed change among Early Start recipients to those new parents not receiving Early Start services either because they were not referred to the program (the Welcome Home only sample) or never engaged in the program (those Early Start referrals who did not receive a home visit).

Program Implications:

All new parents, regardless of socio-economic status, can expect to face a variety of challenges and need a range of supports during their child's first year of life. Although most new parents will learn more about child development and feel more competent in their ability to care for their infant over time, many will experience increased stress, personal depression, and numerous moments of uncertainty. Even among our sample of new parents with the greatest material and psychosocial resources, a significant decrease was observed in their sense of

Table 4.21 Predictive Relationships of Early Start Participant Outcomes on the Number of Early Start Home Visits with Control Terms

Independent Variables	CAP	PC	PSOC	PSOC-SK	PSOC-VC	SSB	SSI	PSS	CES-D
Constant	-14.40	.51	61.94**	26.77**	37.47**	25.76**	31.01**	1.47	.07
	(41.55)	(1.46)	(6.26)	(3.10)	(3.63)	(3.26)	(4.80)	(3.38)	(4.84)
Cumulative Risk Score	-2.51	.22	-.20	.19	-.39	.02	-.22	.01	-.06
	3.96	(.14)	(.39)	(.20)	(.26)	(.20)	(.33)	(.32)	(.46)
WH-ES Reference Group	.07	-.57	.30	.04	.17	.43	.73	.94	.78
	10.84	(.39)	(1.06)	(.56)	(.72)	(.55)	(.92)	(.87)	(1.26)
Readiness to Change	1.25^	.02	-.26**	-.12**	-.14**	-.01	-.03	.11^	.10
	.69	(.03)	(.07)	(.04)	(.05)	(.04)	(.06)	(.06)	(.08)
Baseline CAP Score	.77**	.00	-.02**	.00	-.02**	-.01*	-.01	.02**	.03**
	.07	(.00)	(.01)	(.00)	(.01)	(.00)	(.01)	(.01)	(.01)
Baseline Outcome Measure Score	—	.34**	.42**	.45**	.34**	.41**	.51**	.41**	.32**
	—	(.06)	(.06)	(.06)	(.06)	(.06)	(.05)	(.07)	(.07)
Total Number of Visits	-1.46*	.00	.07	-.02	.09*	.04	.07	-.06	-.11^
	.57	(.02)	(.06)	(.03)	(.04)	(.03)	(.05)	(.05)	(.07)
Unadjusted R^2	.40	.17	.32	.28	.30	.23	.36	.27	.25
Adjusted R^2	.39	.15	.30	.27	.29	.21	.34	.26	.24
F-statistic	34.10**	8.88**	20.11**	16.76**	18.65**	12.85**	23.83**	16.01**	14.52**

Note: Standard Errors are in parenthesis. Dependent variables included are Child Abuse Potential Inventory (CAP), Parent Concerns (PC), Parenting Sense of Competence Scale (PSOC), PSOC – Skill/Knowledge Subscale (PSOC – SK), PSOC – Valuing/Comfort Subscale (PCOS – VC), Social Support Behaviors Scale (SSB), Social Support Index (SSI), Perceived Stress Scale (PSS), and Center for Epidemiological Studies-Depressed Mood Scale (CES-D).

Significance levels are indicated as $^{**}p < 1$ percent, $^{*}p < 5$ percent, and $^{\wedge}p < 10$ percent.

emotional connection and belonging to those in their informal support network. All of these patterns underscore the importance of casting a broad and inclusive net in providing support and outreach to all new parents.

Although engaging a high proportion of new parents facing the greatest difficulties, as measured by the CAP, our data suggest Early Start services may have having modest success in reducing the risk for physical abuse, changing a parent's sense of competence and comfort in caring for her child, and reducing depressive symptoms. Those participants receiving a greater number of home visits, on average, had more positive scores in all of these areas, controlling for a variety of socio-economic risks and initial level of functioning. Unfortunately, the number of home visits did not have similar success in predicting positive outcomes in the other domains tested. While the absence of significant findings may reflect, in part, the limited sample available for these analyses, the pattern also might suggest that current Early Start service levels may be insufficient to achieve substantial and meaningful change in such critical areas as parental stress and social support. As evidence by the patterns observed among the Welcome Home only sample, the first year of parenting is a time of high stress and poor social connections for many new parents, concerns that may be particularly salient for those new parents with the fewest economic and psychosocial resources. To compensate for these shortcomings, Early Start service providers may need to pay greater attention to addressing the concrete and economic concerns most troubling to the families on their caseload such as childcare, housing, and employment. Within this context, the elimination of the Prevention, Retention, and Contingency (PRC) Funds may have contributed to the absence of notable change in parental stress.

In addition to helping family address basic needs, a more concerted effort may be needed to help participants construct a meaningful and positive network of informal support. As noted in the analysis of the baseline and 3 month data, new parents in both Early Start referral groups were significantly less likely than the Welcome Home only group to rely on informal supports in meeting a variety of their parenting needs. To a certain extent, the absence of strong informal supports within the Early Start population may reflect the isolation often observed in families with limited economic resources who are concentrated in communities with poor social services and the absence of collective efficacy. While such limitations may make it more difficult for Early Start service agencies to improve social networks among its participant base, the development and nurturing of such personal relationships may be critical for achieving meaningful program impacts.

Child Abuse Reporting Data

Although enhancing parental capacity is a central objective of the Welcome Home and Early Start intervention system, equally important is insuring child safety. To capture the extent to which these home visitation efforts achieve this objective, we examined data from the county's Department of Children and Family Services (DCFS) to determine if the children in our sample were reported for child maltreatment during their first months of life. Although the post-enrollment observation period for most of the children in our sample is limited at this point, we are able to examine the level of DCFS involvement with approximately 60 percent of the sample for at least 6 months and 88 percent of the sample for at least 3 months.

Forty-seven participants in our sample had at least one DCFS report for child abuse or neglect between their birth and December 31, 2001. Overall, 1.7 percent of the WH sample (5 cases), 7.6 percent of the WH-ES referral group (25 cases) and 8.8 percent of the OWF-ES referral group (17 cases) were the subject of a child abuse report during our observation period. Over 70 percent of these reports involved potential child neglect, 15 percent involved emotional maltreatment and 13 percent involved physical abuse. Of these cases, twenty-seven (or 54%) were subsequently indicated or substantiated. Of these twenty-seven confirmed reports, four were from the WH group, fourteen were from the WH-ES group and nine were from the OWF-ES group. There was no significant relationship between type of alleged abuse and the substantiation of the report ($X^2 = 7.16$, $p = .214$), although a higher proportion of the neglect charges (66%) were substantiated or indicated than allegations involving emotional maltreatment (42% of these cases were indicated or substantiated) or physical abuse (33% of these cases were indicated or substantiated). When we examined the child welfare outcomes of all reports, almost 45 percent of these cases were closed following an investigation and 45 percent were referred on to additional services. Of the remaining cases, 6 percent (or three children) were being provided substitute care.[9] No outcome data was available for the remaining two cases. As might be expected, those cases in which the report was substantiated or indicated were more likely to be referred on to service or provided substitute care ($X^2 = 14.16$, $p = .001$). Over 80 percent of those cases in which a report was unfounded and 20 percent of the substantiated or indicated cases were closed following investigation.

In examining the characteristics of these reported cases, we noted 56 percent of the reported were fled prior to any Early Start services or involvement. Thirteen of the reports involved infants less than 1 week old, twelve of which involved charges of neglect and one of which involved an allegation of physical abuse. In all of these cases, the abuse was either substantiated or indicated. In two of the cases, the infants were placed in substitute care while in eleven of these cases the families were referred on to services. Of these thirteen cases, eight involved families in the WH-ES referral group and five involved families in the OWF-ES group.

Unlike the wide variation observed between the full WH-ES and OWF-ES referral samples noted earlier in this report, the subgroup of participants in each group who experienced a report for child abuse and neglect were similar. No significant differences were observed between the two referral groups in terms of the nature of the abuse allegation or Early Start service experiences. No significant differences were observed in the number of home visits provided participants in both groups ($t = -.51$, $p = .62$) or in their average service duration ($t = -.94$, $p = .35$). Although WH-ES participants with child abuse reports were significantly younger than those in this referral sample not reported for maltreatment ($t = -2.79$, $p = .010$), the groups were comparable on other demographic characteristics such as race, martial status, educational status, employment status, and income.

Table 4.22 compares the mean scores on all of our assessment measures for participants in both referral groups who were reported to DCFS for child abuse and those that were not reported. As this table indicates, only one significant difference was observed among all of these comparisons. Within the OWF-ES sample only, those mothers whose children were reported for abuse or neglect had significantly higher baseline CAP scores than the mothers of those children in this referral group who were not the subject of an allegation. The magnitude of this difference is striking. The average CAP score for the OWF-ES sample participants reported for maltreatment was 201, well above the measure's cut-off for high-risk (166) and close to the measure's score for very high-risk (215). Indeed, eleven of the seventeen cases reported for maltreatment within the OWF sample had CAP scores above the 166 cut-off. In contrast, only five of the twenty-five cases that were reported for maltreatment within the WH-ES sample exceeded this benchmark indicator of high risk.

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[9] Two of these infants involved OWF-ES referrals and one involved a family in the WH-ES referral group. Only one of these families received a home visit and all three families terminated services within 2 months of their referral to the program.

In addition to examining the differences within each referral sample between those cases reported and not reported for maltreatment, we also looked for key differences in the characteristics of the mothers in cases where the report was unfounded versus substantiated or indicated. The results of these comparisons are summarized in Table 4.23. Somewhat surprisingly, we found no statistically significant differences in the demographic profile, initial functioning, or Early Start service experiences between those families with substantiated or indicated reports of maltreatment and those whose reports were unfounded. The only significant difference at the time of the initial interview for this sample was a higher level of perceived stress and a greater number of parent concerns among those families with substantiated or indicated reports of maltreatment.

Implications:

Given the demographic profile of the families enrolled in this study, one might have expected a high proportion of these infants to be reported for child abuse and neglect. However, only 8 percent of all those families referred on the Early Start were reported for child abuse during our observation period and only half of these cases, or 4 percent of the total sample, resulted in a substantiated or indicated charge of maltreatment. To a certain extent, this relatively low incidence rate is a reflection of our very limited observation period. As noted above, only 60 percent of the infants in our sample were observed for the first 6 months of their life. As we extend our observation period to cover the infant's initial year of life and have an opportunity to observe the full sample for this period, we anticipate identifying an increased number of reports and confirmed cases.

The low reporting rates also may reflect the very limited detection opportunities that exist for young infants. Unlike their school-aged counterparts, the majority of infants do not have extended contact with professionals or adults outside their immediate family who may be in a position to observe abuse or indicators of potential harm. Unless the abuse or neglect of an infant results in such substantial harm that medical care is sought or is noted at the time a woman gives birth, it is very likely that abuse or neglect could go undetected for many months, if not years. Indeed, the fact that those enrolled in Early Start have ongoing contact with a service professional may in and of itself contribute to an increased number of reports among this service population.

Table 4.22 Comparison of Sample Participants Reported and Not Reported for Child Abuse, By Referral Source

	Welcome Home - Early Start					OWF - Early Start				
	Reported		Not Reported		*t*-value	Reported		Not Reported		*t*-value
Measures	*M*	*(SD)*	*M*	*(SD)*		*M*	*(SD)*	*M*	*(SD)*	
Sample Size	25		314			17		178		
Family Strengths	8.3	(.8)	8.3	(.7)	.6	8.6	(.8)	8.7	(1.0)	-.5
Readiness to Change	59.1	(7.6)	58.2	(6.6)	.7	59.9	(8.8)	58.3	(6.6)	.9
KIDI (% Correct)	58.7	(.1)	62.5	(.1)	-1.4	61.5	(.1)	66.3	(.1)	-1.7
BSC (%Correct)	87.1	(.1)	86.5	(.1)	.4	85.8	(.1)	87.4	(.1)	-1.0
Parenting Sense of Competence	76.3	(10.4)	75.5	(8.6)	.4	72.8	(7.9)	75.1	(8.3)	-1.0
Social Support Behaviors	42.1	(1.8)	42.0	(3.4)	.1	40.6	(5.6)	40.7	(6.9)	-.0
Social Support Index	65.9	(8.0)	65.3	(8.0)	.3	61.6	(9.5)	62.4	(8.7)	-.3
Perceived Stress Scale	16.3	(7.1)	14.3	(6.3)	1.5	17.9	(5.8)	16.7	(7.1)	.7
Parental Concerns	3.5	(3.1)	3.7	(3.1)	-.4	5.6	(3.6)	4.5	(3.3)	1.2
Depression Mood Scale	12.8	(9.6)	11.7	(8.5)	.6	18.1	(11.7)	13.7	(9.3)	1.8
Child Abuse Potential Inventory	94.7	(85.1)	93.1	(69.0)	.1	201.6	(104.7)	113.9	(77.2)	3.4**
Months in Early Start	6.5	(5.3)	8.0	(5.4)	-1.2	7.7	(6.3)	7.6	(5.3)	.1
Number of Home Visits	9.1	(7.9)	9.3	(7.4)	-.1	9.9	(9.4)	9.0	(7.8)	.4

Note: Actual sample sizes for individual measures may vary as a result of missing data. A two-tailed test was used to assess the statistical significance of differences in the characteristics between those reported and those not reported for maltreatment within each referral sample.
Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

Table 4.23 Comparison of Case Characteristics Between Unfounded and Substantiated/Indicated Child Abuse Reports Among Early Start Referral Samples

Measures	Unfounded Cases		Substantiated/ Indicated Cases		Statistical Test and Significance	
Sample Size	19		23			
Demographic Characteristics (%)						
Less than age 18	15.8		17.4		χ^2 =	.00
Income < $20,000	93.8		77.8		χ^2 =	.69
African American	42.1		60.9		χ^2 =	.81
Not Married	89.5		78.3		χ^2 =	.30
Non high school graduate	52.6		73.9		χ^2 =	1.23
Not working	73.7		82.6		χ^2 =	.11
Infant < one week at time of report	-		100.0		χ^2 =	19.86**
Early Start Experiences						
Successfully referred on to ES service providers (%)	89.5		100.0		χ^2 =	.75
Engaged at Intake (%)	61.1		63.6		χ^2 =	.00
Engaged at Quarter 1 (%)	33.3		40.9		χ^2 =	.03
Engaged at Quarter 2 (%)	26.3		30.4		χ^2 =	.10
Report prior to ES referral (%)	17.6		50.0		χ^2 =	3.07
OWF Early Start referral (%)	42.1		39.1		χ^2 =	.00
Number of months in program *(M)*	6.9	(5.7)	6.5	(5.6)	t =	.21
Number of home visits *(M)*	10.8	(10.6)	7.4	(6.2)	t =	1.10
Performance Measures at Intake (%)						
Family Strengths	8.6	(.9)	8.3	(.8)	t =	.92
Readiness to Change	58.2	(8.0)	60.4	(8.1)	t =	-.86
KIDI (% Correct)	62.8	(.1)	59.3	(.1)	t =	.98
BSC (%Correct)	87.3	(.1)	85.5	(.1)	t =	.89
Parenting Sense of Competence	76.0	(9.3)	74.7	(9.3)	t =	.43
Social Support Behaviors	42.3	(2.1)	41.0	(4.7)	t =	1.09
Social Support Index	65.0	(8.5)	62.8	(9.0)	t =	.78
Perceived Stress Scale	14.4	(6.6)	18.7	(6.1)	t =	-2.14**
Parental Concerns	3.0	(3.1)	5.5	(3.3)	t =	-2.39**
Depression Mood Scale	13.4	(11.7)	16.0	(9.7)	t =	-.75
Child Abuse Potential Inventory	128.5	(109.0)	144.8	(107.0)	t =	-.49

Note: Actual sample sizes for individual measures may vary as a result of missing data. A wo-tailed test was used to assess the statistical significance of differences in the characteristics between those reported and those not reported for maltreatment within each referral sample. Numbers in parentheses are standard deviations.

Statistical significance levels are indicated as **$p < 1$ percent and *$p < 5$ percent.

Over half of these reports occurred prior to a formal referral to Early Start suggesting caution may be warranted in placing too heavy an emphasis on reducing child abuse reports as an indicator of program success or failure. Although it is possible to distinguish those reports occurring before and after Early Start service involvement, the fact that over half of these reports occurred immediately following birth suggests that it may be unrealistic to expect Early Start, even if fully implemented as designed, to have a substantial impact on the aggregate number of abuse reports involving young infants. Such impacts may be possible only if more aggressive and consistent efforts are developed to provide assistance to women throughout their pregnancy.

The absence of significant differences between reports that are unfounded and those that are substantiated or indicated highlight the difficulty in attempting to implement more refined assessment procedures designed to improve detection of the small number of new parents involved in a reportable act of abuse. Even with information on interpersonal functioning and parenting skills as measured by our battery of standardized assessment measures, t remains difficult, in the absence of a specific allegation, to differentiate those who may or may not treat their child in such a way that a formal report for potential abuse or neglect will be filed and subsequently confirmed. Outside of the very small percentage of new parents who exhibit overt violent behaviors or total disregard for their infant's safety, those who engage in abusive or neglectful behavior do so for various reasons, some predicable and others less so.

However, at least one theory of maltreatment suggests that abuse and neglect occurs when stressful events exceed a family's protective factors or social support (Cicchetti & Rizley, 1981). Our findings provide some support for this theory. Mothers in those cases in which the allegation was subsequently substantiated or indicated did present with significantly higher stress and a greater number of parental concerns at intake than mothers in cases where the charge was unfounded. While apparently similar in terms of their objective resources such as parental competence, knowledge of child development and social support, those cases with substantiated abuse had more to overcome in providing adequate care for their children. Thus, Early Start service providers might be advised to pay particular attention to families who present a greater degree of stress or who articulate a more detailed list of parental concerns at intake, such as caring for their infant, finding housing or establishing or improving relationships with family members or neighbors. These families may be in particular need of assistance in providing safe and adequate care for their children. However, it remains unclear whether more specific attention on the part of the home visitor to these types of concerns or parental stress would lead to a reduction in abuse allegations over time.

Finally, the findings underscore the importance of establishing solid reciprocal arrangements among public welfare agencies, child protective services, and local prevention efforts. The absence of consistent findings linking personal functioning and child abuse reports suggest that parental capacity is only one factor in determining if a child will be reported and, once reported, confirmed as a victim of abuse or neglect. Myriad individual, environmental and organizational factors will play a role in shaping these decisions. Critical factors often include the availability of other informal and formal supports to assist the parent in caring for the infant, the likelihood the parent will engage in voluntary prevention services in the absence of more directed public intervention, and the capacity of child protective services to offer a reasonable and viable service alternative to a particular family. Our data suggest that when an allegation of maltreatment involves a newborn, the tendency for confirmation by child protective service workers is quite high, if not universal. Beyond the first week of life, however, a child abuse report will not always lead to enhanced services or more effective child protection. Even among those cases with the highest initial CAP scores (i.e., >166), over 40 percent of these reports were unfounded and the case closed following an investigation. This outcome was particularly true for OWF families involving reports of young children over 1 month of age. These trends suggest that greater emphasis might be placed on securing ongoing services for all infants reported for maltreatment regardless of the outcome of a formal child welfare investigation. Achieving sustained engagement of these families, however, may require greater administrative collaboration among child welfare, public welfare, and the ECI services system in order to provide new parents the greatest array of service options and the highest levels of supervision and monitoring.

Conclusions

The evaluation offers a broad overview of program operations and potential impacts. The purpose of this section is to summarize the study's major findings in three areas – program strengths, program limitations, and implications for future program development. Prior to this discussion, we address the key limitations of our data and analytic methods.

Study Limitations:

As with many evaluation studies, research design and sample restrictions can threaten statistical validity and reliability of subsequent findings in several ways. In this study, the absence of random assignment leading to nonequivalent samples, the incomplete sample for the final outcome data, and a compressed observation period limited our ability to provide a full and robust analysis of program relationships and impacts void of threats to statistical and internal validity. In the absence of random assignment to treatment and control conditions, it is difficult to determine whether any changes in personal functioning or parental capacity observed among those enrolled in Early Start or Welcome Home services is solely the result of the intervention. Our initial designed attempted to recruit a quasi-comparison sample from those not referred on to Early Start by the Welcome Home nurse. However, a number of significant and potentially important differences emerged between these two samples. Although there are statistical methods that can control for some of these differences, the current sample size for the 11-month data is insufficient for a direct, multivariate comparison between the outcomes of those who received Early Start and those who did not, and programmatic impacts. Low statistical power because of small sample size impacts our ability to discover important relationships, increase the likelihood of drawing a "non-difference" conclusion.

Our participant sample, while reflective of the full Welcome Home and Early Start populations on a number of key personal and service dimensions, is limited to those who met the study's criteria and agreed to participate in the study. Families agreeing to participate in a research project may differ from the general participant population in terms of parental competence or in their responsiveness to the intervention. In addition, differential recruitment rates among Welcome Home service providers may have resulted in our sample including a slightly lower than might be expected proportion of African Americans, very low-income families and families living within one of the 11 core zip codes served by Early Start. As such, sample selection bias may be an issue that impacts the study's internal validity. For example, it is very possible that observed findings or lack of findings between participant outcomes and service measures are due to missing variables related to outcomes, (e.g., personality characteristics of the sample participants) or selection effects (e.g., differences in how participants were recruited into the study), that can under or over estimate statistical relationships. Selection bias also may impact the external validity of findings. The experiences of this sample may not fully reflect or be comparable to the program outcomes experienced by all those receiving Welcome Home or Early Start services. The attitudes, beliefs and service experiences of those enrolled in the evaluation sample may differ from other Early Start recipients in ways not captured by our assessment tools. Consequently, we suggest caution in extrapolating the findings to all Early Start experiences.

The evaluation observed families and programs during a relatively brief period of time and assessed families on a limited number of constructs. It is possible that initial positive outcomes may not be sustained over a longer period of time or that certain changes in a parent's capacity to effectively meet his or her child's needs may take longer to surface. A constricted observation period is particularly relevant for interpreting our analysis of child abuse and neglect reporting patterns. As noted earlier, 88% of the sample was observed for only three months and 60% observed for six months. As we have the opportunity to observe the full sample for the infants first year of life, the proportion of the sample reported for maltreatment may well increase.

Finally, our measures, although among the most reliable assessment measures used with these populations, may not capture some of the more subtle changes families' experience as a result of the intervention. Despite the fact that care has been taken to incorporate both participant and provider views of service impacts into our analysis, it is possible that the program has altered the lives of participants in ways we have not captured. Detecting significant changes over time is further limited by the fact that 11-month outcome data was available only for those participants who enrolled in the study prior to June 2001 (or about 50% of the sample). We anticipate being able to provide a more complete description of possible program effects once all of the 11-month data is collected and processed.

Program Strengths:

Interview data with program participants and direct service providers suggested high satisfaction with both Welcome Home and Early Start services. Conceptually, both programs have clear theories of change and are well grounded in the research emerging in the early intervention and child abuse prevention literature. This is particularly reflected in the program's emphasis on educating parents with respect to child development, emphasizing the importance of early and consistent health care services for their infants, and highlighting the availability of various support service within the community. While Early Start service duration and dosage rates are less than those recommended in the program's performance standards, they are typical of what is observed in other programs in the prevention and early intervention fields. As such, we do not view these limitations as an indication of program failure but rather symptomatic of a broader, more complex problem facing all those implementing voluntary prevention services.

Key strengths noted in the evaluation data include the following:

- Virtually all Welcome Home recipients had positive impressions of the service and their Welcome Home service providers at the time of the three-month interview. These new parents welcomed the opportunity to learn more about their infants in the privacy of their own homes and found the nurse to be a thoughtful and competent resource. Reflecting the program's emphasis on infant health and development, Welcome Home materials proved most useful in addressing these types of concerns.
- Newborns and their parents are being provided ongoing home visitation services much earlier in the infant's life than had been true in 1999. Today, the average time between referral in and out of Interlink is 2 weeks, and the average time between referral to an Early Start service agency and first home visits is less than 1 month. As a result, the average infant who is referred prior to her 6-month birthday or when her mother is pregnant will receive an initial home visit within the first month of life.
- Early Start referrals who present the highest level of risk, as measured by the Child Abuse Potential Inventory, are twice as likely to receive an initial home visit and engage in the program as those with the lowest CAP scores. This pattern suggests that Early Start is successful in reaching at least a portion of its target population.
- Once engaged in the program (had a home visit), virtually all Early Start participants (94%) remain enrolled at least three months and three-quarters remain in the program at least six months. At the end of our current nine-month observation period, almost 60% of those who received at least an initial home visit were still enrolled in the program. This retention rate, while less than proscribed in the Early Start service model, is comparable to the rate achieved by many home visitation programs serving new parents.
- Retention in Early Start is far more likely if the participant and home visitor are able to establish a strong relationship based on a mutual understanding of the purpose of Early Start and a mutual respect for what each can bring to the service relationship. Those participants who remained in the program for at least nine-months reported higher levels of interpersonal connection, collaboration and clarity about their service relationship and were more likely to believe that they and their home visitor agreed on how to approach problems.
- Over our nine-month observation period, Early Start participants received an average of 11.3 visits, or approximately 50% of the number of visits that should have been provided if the model had been delivered as designed. Again, while this level is below model expectations, these visits, coupled with the ongoing telephone contact and referrals reported by Early Start home visitors, indicate that new parents facing significant challenges are receiving ongoing support through Early Start.
- Those referred to the program through OWF demonstrated a slight, but not significant, tendency to receive a greater number of home visits and a higher proportion of scheduled visits, a pattern supported in the data we obtained from the Early Start home visitors. This trend may suggest that once OWF families receive a home visit and establish a relationship with a specific service provider, their array of needs and tendency to rely on formal supports to meet these needs may be particularly well suited to the Early Start service model.

- Our data suggest a greater number of home visits by Early Start providers have modest predictive ability in explaining a participant's reduced risk for physical abuse and increased sense of competence and comfort in caring for her child. Those participants receiving a greater number of home visits had more positive 11-month outcome scores on standardized measures assessing both of these areas controlling for various of socio-economic characteristics and initial personal functioning.
- Eight percent of all those families referred on to Early Start were reported for child abuse during our observation period and only half of these cases, 4 percent of the total sample, resulted in a substantiated or indicated charge of maltreatment. Of these confirmed cases, over half were reported to CPS during the infants first week of life and before the family had any contact with Early Start.

Program Limitations:

The provision of intensive, voluntary, ongoing support programs is a difficult enterprise. Implementation and sustainability of such programs are particularly challenging when they are designed to capture a broad segment of the population that are "at-risk" and deliver services through an equally broad system of community based providers. As such, it should not be surprising that some elements of the Early Start service system are not meeting expectations. Those performance areas that the evaluation found particularly troubling include the following:

- Welcome Home recipients found the visit and related material less useful in connecting them with other resources in the community or in helping them address concerns with their own physical and emotional well-being. In addition, Welcome Home recipients reported that the program was not helpful in connecting them with other new mothers in the community.
- One out of every three referrals to Early Start will leave the system without ever having received even one visit. Although our analysis suggests that this group includes a higher proportion of those with the lowest CAP score and therefore may have less need for the program, we observed a substantial and significant increase in average CAP scores for this group by the time of the 11-month interview.
- The failure to enroll a notable proportion of those at lower risk may be a function of differential agency performance, with some Early Start providers having very limited success in engaging these families in service. Although many of the workers in these agencies indicated an inability to contact families as the reason for service termination, it is interesting to note that the study evaluation team successfully interviewed over 90 percent of the 155 individuals that Early Start workers were unable to contact or draw into the program.
- While those receiving a greater number of home visits tended, on average, to have higher baseline CAP scores, those with the greatest number of socio-economic risk markers (e.g., single parent status, young maternal age, low income, etc) and African Americans were significantly less likely to receive the greatest number of visits. These findings, while somewhat counterintuitive, suggest that the assessment of risk is complex and that Early Start, while successful in engaging parents that face certain psychological challenges in caring for their children, appears less successful in attracting and retaining those parents facing the most stressful economic circumstances.

- Early Start service levels were not predictive of positive change in a number of critical domains such as social support and parental stress. These areas, while troublesome for all new parents, may be particularly salient for families with the fewest economic and personal resources. Indeed, a higher number of parenting concerns and perceived stress at baseline were the only two features that distinguished those new parents whose children were substantiated or indicated victims of abuse during our observation period.

Implications for Future Program Development:

All new parents, regardless of socio-economic status, can expect to face a variety of challenges and need a range of supports during their child's first year of life. While most new parents will learn more about child development and feel more competent in their ability to care for their infant over time, many will experience increased stress, personal depression and numerous moments of uncertainty. Even among our sample of new parents with the greatest material and psychosocial resources, a significant decrease was observed in their sense of emotional connection and belonging to those in their informal support network. All of these patterns underscore the importance of casting a broad and inclusive net in providing support and outreach to all new parents. The findings suggest at least three strategies for improving program performance:

- **More directed assistance to Early Start agencies in the area of participant recruitment** -- While our data suggests that the average new parent not engaging in Early Start may initially present a lower risk for physical abuse, the subsequent increase in CAP scores and the fact that many of these families carry a number of the demographic markers associated with poor outcomes for children underscore the importance of maximizing the enrollment of all Early Start referrals. While additional analyses are needed, it appears that certain Early Start agencies and workers are more successful in engaging families than others. In some cases, this differential performance may be a function of greater organizational resources or administrative emphasis on participant engagement, such as offering participants incentives (e.g., small gifts for the infant, access to other services provided by the agency) or worker incentives (e.g., compensating workers for going beyond the traditional work day or caseload levels to cover multiple attempts to contact a particularly resistant family). In other cases, varying success in engaging referrals may reflect some workers having a personality or service delivery style more attractive to a greater proportion of potential program participants. Subsequent analyses based on the full participant sample will focus on better specifying these agency and worker characteristics. The general pattern, however, suggest that participant recruitment represents a unique dimension of the service delivery process. Increasing the proportion of referrals receiving an initial home visit may require more focused attention and training on this topic across Early Start service agencies.
- **Greater emphasis on strengthening social networks in structuring both Welcome Home and Early Start services** – The first year of parenting is a time of high stress and poor social connections for many new parents. While participants in both the Welcome Home and Early Start referral groups reported higher levels of material support in terms of financial assistance and child care advice, the average new parent appears to lose the type of emotional support and reassurance that can serve as a buffer between the demands of daily living and adequate parenting. Given the importance of these emotional connections, it seems prudent for both Welcome Home and Early Start to place increased

emphasis in this area. Strategies might include augmenting home visitation services with center-based programs or parent support groups that draw together new parents within a community. Such groups can provide emotional connections for participants as well as a mechanism for validating the challenges of caring for a newborn.

- **Improved linkages among the ECI system, OWF and child protective services** – Our findings underscore the importance of solid reciprocal arrangements among public welfare agencies, child protective services, and local prevention efforts. Many of the families involved in Early Start have ongoing contact with other agencies particularly public welfare and child protection. Efforts should be made to strengthen the existing reciprocal arrangements among ECI and child welfare and public welfare to insure that families have access to the maximum range of supports. Collaboration is particularly critical in cases where the family is considered to present a high risk for child abuse or neglect. Consideration should be given to requiring formal case management or family team meetings involving both child welfare and ECI staff in all reported cases involving infants six months or younger. While not all such cases will require formal child protective service interventions, it seems likely that most of these cases would benefit from the type of parenting education and supportive services available through ECI. Similarly, increased collaboration and shared commitment between OWF staff and Early Start home visitors may be necessary to improve the initial engagement rates of OWF referrals. As noted in our report, OWF families were less likely than those referred from Welcome Home to accept an initial visit suggesting that such families may present specific barriers to enrollment which Early Start providers may have difficulty overcoming. Achieving higher engagement rates with these families, therefore, may require greater administrative collaboration between public welfare and the ECI services systems in order to provide these new parents the greatest array of service options and the highest levels of supervision and monitoring. Early Start home visitors need the capacity to better address the concrete and economic concerns most troubling to families referred for service either through the direct provision of aid or through referral to other agencies with ongoing access to the Prevention, Retention and Contingency (PRC) funds.

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Appendix 4.1 Sample Response and Refusal Rates

Table 4.1A Original Selected Sample Size and Interview Response Rate by Subgroups

	Welcome Home Visit Only		Welcome Home - Early Start Referrals		Ohio Works First - Early Start Referrals	
	N	%	*N*	%	*N*	%
Original Selected Sample	289		325		193	
Initial Interview	269	93	314	97	178	92
Three Month Interview	266	92	298	92	162	84
Final Interview[a]	157	54	176	54	95	49
Provider Intake Survey	-	-	305	94	174	90
Provider Quarterly #1 Survey	-	-	226	70	127	66
Provider Quarterly #2 Survey	-	-	158	49	87	45

Note: All participants were attempted to be contact for interviewing if they completed the Initial Interview. Early Start providers were not required to complete an Intake Survey or a Quarterly Survey once a participated was terminated from the Early Start Program.

[a] Final Interviews for the full sample were not complete at the time of this analysis. Thus, final rates and completion rates were not available for analysis presented in this report.

Table 4.1B Study Refusal Rates Across Welcome Home Hospitals

	Welcome Home-Only Sample				Welcome Home-Early Start Sample				Total Hospital Recruited Sample			
Hospital Name	Accepted *N*	Refused *N*	Total *N*	Refusal Rate %	Accepted *N*	Refused *N*	Total *N*	Refusal Rate %	Accepted *N*	Refused *N*	Total *N*	Refusal Rate %
Cleveland Clinic Home Care	95	288	383	75.2	33	24	57	42.1	128	312	440	70.9
Fairview Hospital	336	138	474	29.1	86	10	96	10.4	422	148	570	26.0
Lakewood Hospital	64	45	109	41.3	26	2	28	7.1	90	47	137	34.3
Marymount Hospital	62	50	112	44.6	12	5	17	29.4	74	55	129	42.6
Metrohealth Medical Center	17	93	110	84.5	31	80	111	72.1	48	173	221	78.3
Parma Community Hospital	107	108	215	50.2	11	8	19	42.1	118	116	234	49.6
Professional Nurse Associates	51	29	80	36.3	38	2	40	5.0	89	31	120	25.8
Southwest General Health Center	70	58	128	45.3	0	1	1	100.0	70	59	129	45.7
St. John West Shore Hospital	18	11	29	37.9	0	1	1	100.0	18	12	30	40.0
University Hospital Home Care Service, Inc	161	39	200	19.5	88	13	101	12.9	249	52	301	17.3
Total Hospital Recruits	981	859	1840	46.7	325	146	471	31.0	1306	1005	2311	43.5

Note: The refusal rate for Ohio Works First participants was 1.0%. Twenty-two refusals did not specify Welcome Home-Only or Welcome Home-Early Start status. There are several issues about the validity of this refusal data as reported by the Welcome Home nurses during their recruitment efforts. First there seemed to be ongoing confusion about who should be asked to participant in the study. Second, it cannot be confirmed that nurses, within and across hospitals, always documented and returned refusal forms in a consistent and accurate manner. Lastly, it is often unclear in the refusal data whether participants accepted the Early Start referral, but refused study participation or if they refused the Early Start referral and therefore were ineligible for the study and should not have been asked to participate in the study.

Appendix 4.2 Comparison of Research Sample Groups

Table 4.2A Estimated Regression Coefficients of Demographic Variables for the Probability of Assignment to the Welcome Home-Early Start Sample Group compared to the Welcome Home Only Sample Group

Variable	Unstandardized Coefficient	Standard Error	*p*-value[a]
Constant	.981	.124	.000**
Mother's Age	-.021	.004	.000**
Race/ethnicity			
African American, Black, not Hispanic	.081	.049	.099
White, not Hispanic	-.039	.047	.409
Never married	.277	.043	.000**
Received high school diploma or GED	-.208	.039	.000**
Employed (full-time or part-time)	-.139	.034	.000**
Low Income[b]	.038	.037	.304
Number of adults in household	.003	.016	.868
First Time Parent	.036	.059	.535
Sample Size	583		
R-square	.491		
Adjusted *R*-square	.483		
F-Statistic	59.61**		
P-value of *F*-Statistic	.000		

Note: The dependent variable in each regression equation was one for WH-ES and zero for WH-only. Parameter estimates are raw scores from ordinary least squares models. The p-value of the F-statistic is the probability of obtaining the coefficient estimates if the true chance of being referred to Early Start did not vary with any characteristic. Thus, the closer the p-value is to zero the more likely the characteristics of WH-only and the WH-ES group are statistically, as well as descriptively, non-equivalent groups.

[a] A wo-tailed t-test was applied to each coefficient estimate.

[b] Low-income is household income less than $10,000 a year.

Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

Table 4.2B Estimated Regression Coefficients of Demographic Variables for the Probability of Assignment to the Welcome Home-Early Start Sample Group Compared to the Ohio Works First-Early Start Sample Group

Variable	Unstandardized Coefficient	Standard Error	p-value[a]
Constant	.838	.153	.000**
Mother's Age	-.024	.005	.000**
Race/ethnicity			
African American, Black, not Hispanic	-.048	.054	.374
White, not Hispanic	.026	.058	.656
Never married	.075	.057	.190
Received high school diploma or GED	-.100	.038	.010*
Employed (full-time or part-time)	-.010	.038	.787
Low Income[b]	-.109	.036	.003**
Number of adults in household	.043	.017	.010*
First Time Parent	.394	.045	.000*
Sample Size	492		
R-square	.384		
Adjusted R-square	.372		
F-Statistic	31.91**		
P-value of F-Statistic	.000		

Note: The dependent variable in each regression equation was one for WH-ES and zero for OWF-ES. Parameter estimates are raw scores from ordinary least squares models. The pvalue of the Fstatistic is the probability of obtaining the coefficient estimates if the true chance of being referred to Early Start did not vary with any characteristic. Thus, the closer the p-value is to zero the more likely the characteristics of WH-only and the WH-ES group are statistically, as well as descriptively, non-equivalent groups.

[a] A two-tailed t-test was applied to each coefficient estimate.

[b] Low-income is household income less than $10,000 a year.

Statistical significance levels are indicated as $^{**}p < 1$ percent and $^{*}p < 5$ percent.

Table 4.2C Estimated Regression Coefficients of Baseline Participant Performance Measures for the Probability of Assignment to the Welcome Home-Early Start Sample Group Compared to the Welcome Home Only Sample Group

Variable	Unstandardized Coefficient	Standard Error	*p*-value[a]
Constant	1.848	.476	.000**
Readiness to Change	.009	.003	.003**
Family Strengths	-.094	.029	.001**
Knowledge of Infant Development (KIDI) Correct	-.769	.152	.000**
Baby Safety Checklist (BSC) Correct	-.368	.318	.248
Social Support Behaviors (SSB)	-.003	.007	.660
Social Support Index (SSI)	-.011	.003	.000**
Parenting Sense of Competence (PSOC)	.009	.003	.001**
Depression Mood Scale (CES-D)	.012	.003	.000**
Perceived Stress Scale (PSS)	-.003	.004	.514
Initial Total Parent Concerns (PC)	-.005	.007	.496
Initial Child Abuse Potential Inventory (CAP)	-.001	.000	.031*
Sample Size	583		
R-square	.184		
Adjusted *R*-square	.168		
F-Statistic	11.66		
P-value of *F*-Statistic	.000**		

Note: The dependent variable in each regression equation was one for WH-ES and zero for WH-only. Parameter estimates are raw scores from ordinary least squares models. The pvalue of the Fstatistic is the probability of obtaining the coefficient estimates if the true chance of being referred to Early Start did not vary w ith any characteristic. Thus, the closer the p-value is to zero the more likely the characteristics of WH-only and the WH-ES group are statistically, as well as descriptively, non-equivalent groups.

[a] A two-tailed t-test was applied to each coefficient estimate.

Statistical significance levels are indicated as $^{**}p < 1$ percent, and $^{*}p < 5$ percent.

Table 4.2D Estimated Regression Coefficients of Baseline Participant Performance Measures for the Probability of Assignment to the Welcome Home-Early Start Sample Group Compared to the Ohio Works First-Early Start Sample Group

Variable	Unstandardized Coefficient	Standard Error	*p*-value[a]
Constant	2.060	.467	.000**
Readiness to Change	.001	.003	.662
Family Strengths	-.154	.025	.000**
Knowledge of Infant Development (KIDI) Correct	-.496	.174	.005**
Baby Safety Checklist (BSC) Correct	-.140	.324	.666
Social Support Behaviors (SSB)	.010	.004	.026*
Social Support Index (SSI)	.005	.003	.082
Parenting Sense of Competence (PSOC)	-.003	.003	.238
Depression Mood Scale (CES-D)	.003	.003	.367
Perceived Stress Scale (PSS)	-.008	.004	.060
Initial Total Parent Concerns (PC)	-.008	.007	.220
Initial Child Abuse Potential Inventory (CAP)	-.001	.000	.001**
Sample Size	492		
R-square	.161		
Adjusted *R*-square	.142		
F-Statistic	8.38**		
P-value of *F*-Statistic	.000		

Note: The dependent variable in each regression equation was one for WH-ES and zero for OWF-ES. Parameter estimates are raw scores from ordinary least squares models. The pvalue of the Fstatistic is the probability of obtaining the coefficient estimates if the true chance of being referred to Early Start did not vary with any characteristic. Thus, the closer the p-value is to zero the more likely the characteristics of WH-only and the WH-ES group are statistically, as well as descriptively, non-equivalent groups.

[a] A two-tailed t-test was applied to each coefficient estimate.

Statistical significance levels are indicated as $^{**}p < 1$ percent, and $^{*}p < 5$ percent.

Chapter 5
Family Child Care Homes

Sue Pearlmutter, Liane Grayson, and Julia Withers

Chapter Summary

The Family Child Care Homes component of the Early Childhood Initiative (ECI) was intended to increase the number of certified family child care homes[1] in Cuyahoga County by 1,025 and improve the quality of care provided in those homes. Technical support visits to child care providers were implemented to increase child care quality. Starting Point, the County's resource and referral service, and its four regional partners recruit, train, and deliver technical support to new family home care providers. The evaluation sought to determine if the component had met its capacity building goal and if the quality of child care improved over time among a sample of providers.

Altogether, 1,499 homes in the County had been certified to provide family child care by June 30, 2002. Seventeen percent of providers who had been certified at some time during the three years ending June 30, 2002 terminated their contract with the County and are no longer providing child care. Provider income from child care subsidies increased during the three year period. Mean monthly income in March 2000 was $1,175 per month. By March 2002, providers were earning on average, $1,859 per month. Providers also increased the number of children in care during this time, from an average of three to an average of 4.6 children per month.

A total of 968 providers (65%) voluntarily enrolled in "Care for Kids," from July 1999 to June 30, 2002. They received 8,885 technical support visits to assess and improve the quality of care. The number of visits averaged about ten. An additional 142 providers not enrolled in Care for Kids received a total of 453 quality enhancement visits, about three visits per provider. In general, 1,327 providers for whom visit data are available received about 13 visits from July 1999 – June 2002, including pre-certification, meals and snacks, and quality enhancement visits.

Technical assistance providers have built strong, supportive relationships with child care home providers. Yet, they experience difficulty in delivering consistent, focused instruction that results in changing behaviors to improve the quality of home based care.

Trained observers recruited and visited a random sample of family child care providers. Two standard assessment measures, the *Family Day Care Rating Scale (FDCRS)* and the *Caregiver Interaction Scale (CIS),* were used to obtain baseline and 12-month follow-up assessments of the quality of care. Interviews were conducted with each provider following a visit to the home. While the quality of care in a few child care homes increased over the 12-month period, the overall quality of care remained poor.

Thus, one goal, to increase the capacity of child care by certifying 1,025 family child care homes, was met by late 2000 and the component has since exceeded its overall plan for capacity building. The second goal, to increase the overall quality of child care provided, as measured in a random sample of family child care homes, is in progress.

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[1] Family child care is regulated child care provided to six or fewer children under the age of six, in the home of the provider. In this report, such care may be called home based, Type B, or family child care.

Introduction

Cuyahoga County's Early Childhood Initiative (ECI) includes an effort to expand and improve the provision of family-based child care as a strategy for meeting the child care needs of County families, particularly those entering and remaining in the workforce as a result of 1996 welfare reform legislation. Since then, cash assistance recipients have been required to participate in work activities and prepare to leave the welfare system for employment. Time-limited welfare as a part of the Temporary Assistance to Needy Families (TANF) program has resulted in many more women entering the labor market than during previous welfare reform programs. Policymakers recognized the importance of child care availability in assuring that families can seek and retain employment in 1996. Re-authorization debates have centered around its value and need for expansion (Adams, Snyder, & Sandfort, 2002; Blank, 1997; Blau & Tekin, 2001; Brayfield, Deich, & Hofferth, 1993; Cabrera, Hutchins, & Peters, 2002; Casper, 1995; Coley, Chase-Landsdale, & Li-Grining, 2001; Fuller & Kagen, 2000; Galinsky, Howes, Kontos, & Shinn, 1994; GAO, 1994; Gilbert, Berrick, & Meyers, 1992; Hofferth, 1995; Kisker & Ross, 1997; Larner, 1994; Meyers, 1995; Michel, 1999; Phillips, 1995).

Subsidies to states and local jurisdictions are available through the Child Care Development Fund and states also have been able to use a portion of their TANF funding to increase the accessibility of subsidies. While child care subsidies had been available to low-income families since the implementation of employment training programs in the mid-1960s, funding had been insufficient and quality of care in settings where vouchers could be used has been constantly questioned (Michel, 1999). As a result, many low-income families did not use the voucher or direct subsidy systems, preferring to obtain care themselves, to share care with spouses or family members, or to arrange work and/or training schedules around their child's schedule (Brayfield et al., 1993; Kisker & Ross, 1997; Phillips, 1995). TANF work participation demands meant that many more families would have to use the child care subsidy system, that local child care systems would have to expand, and that parents would have to be able to trust the reliability and safety of the new child care settings they used.

In addition to assuring accessibility and reliability of child care services, researchers and advocates have been concerned about the quality of care available to families. Researchers have been particularly concerned about the child care resources accessible to low-income families (Brayfield et al., 1993; Casper, 1995; Fuller & Kagen, 2000; Galinsky et al., 1994; GAO, 1994; Gilbert et al., 1992; Hofferth, 1995; Kisker & Ross, 1997; Kontos, Howes, Shinn, & Galinsky, 1995; Larner, 1994; Meyers, 1995; Michel, 1999; Mitchell, Cooperstein & Larner, 1992; Phillips, 1995; Vandell & Wolfe, 2000). Studies have shown that the quality of provider-child interaction is often poor, creative play and activities may be discouraged by providers, physical facilities lack resources for children and may be unsafe, and discipline techniques are limited.

Recent national studies show that most child care quality is fair at best. A report on more than 600 child care settings (NICHD Early Child Care Research Network, 2000) found that over 60% of settings visited were fair or poor in quality. Kontos et al. (1995) report that 91% of the family child care providers in their sample provided poor or fair quality care based on observational scores from the *Family Day Care Rating Scale* (*FDCRS*) (Harms & Clifford, 1989). Finally, of the family child care homes visited as part of the Smart Start Evaluation (Peisner-Feinberg, Bernier, Bryant, & Maxwell, 2000), 92% had *FDCRS* scores in the poor or fair range of quality. In general, the research shows that family child care homes tend to score lower on measures of child care quality than do child care centers (Fuller & Kagan, 2000; Vandell & Woolfe, 2000).

However, determining quality in child care settings is not a simple process. Questions have been raised about the dimensions of quality, about the connection of quality to child development, and about the intricacies of the relationships between parents, providers and children (see Besharov & Samari, 2000 and Vandell & Wolfe, 2000 for extensive discussion of some of these questions). Parents' definitions of quality are often at odds with definitions put forth by child care professionals and advocates (Kontos et al., 1995). Parents often desire a provider who is warm and loving (Kontos et al., 1995). They want a provider who will communicate with them and is flexible and understanding of their needs (Cabrera et al., 2002; Fuller, Kagan, & Loeb, 2002). Mensing, French, Fuller, and Kagan (2000) found that parents desired a provider who is trustworthy and whose child care setting feels safe. Only when these criteria are satisfied do parents talk about the importance of a developmentally appropriate learning environment, convenience, and structure of the setting.

Even less is known about how to enhance the quality of care provided in family child care settings. Vandell and Wolfe (2000) present a case for significant investment of public funds to improve the quality of care. They identify many strategies that are available to the public sector. One strategy calls upon the public sector to "increase the pool of well-qualified individuals who enter and remain in the field of early childhood education through the kinds of tuition subsidies and incentives traditionally used in nursing, physician, and teacher training when shortages appear" (p.6). Taylor and Bryant (2002) report that several factors are related to improving the quality of child care. These include strong leadership in the quality improvement program and in collaborating organizations; strategic planning for a system of quality improvement programs; organizational support for the training and development of child care staff; a system of financial rewards for providers who obtain higher education and improve the quality of care; technical assistance, conducted on-site and customized to the child care program's needs; and strong, effective collaborations with community organizations and programs.

In planning for implementation of Ohio Works First (OWF), Ohio's TANF program, Cuyahoga County officials recognized that existing child care services in the County would not meet the demands of the many new families who would be seeking child care to participate in work activities while receiving cash assistance, or to leave cash assistance for work. Subsidies for child care had been available to low-income families for more than 20 years, but the use of subsidies had been limited. In 1997, Starting Point, the County's child care resource and referral service, reported that child care homes and centers were operating at close to capacity (Osborne-Fears, 1997). At the same time, it was estimated that if all cash assistance recipients in the County were to comply with OWF's work requirements, more than 7,000 slots would be required to meet the demand for family-based child care for children aged birth to five (Gallagher, Pearlmutter, Wang, Coulton, & Bania, 1997). The Family Child Care Homes component was influenced by each of these factors: federal and local TANF work participation requirements and time-limited cash assistance, lack of space in existing child care settings, and a recognition that many young families prefer family child care for their young children.

Advocates and public officials realized that building child care capacity in Cuyahoga County should have two dimensions – increasing the number of family child care homes and enhancing the quality of care among those providers. Thus, the purpose of the Family Child Care Homes component is to assure the availability and quality of child care services to low-income families and to all families who might choose family-based care for their young children. During its initial 18 months of operation, this component of the Initiative concentrated on increasing the number of family child care home providers and thus, expanding the number of available child care slots. Later in the second and subsequent years, efforts have been directed at enhancing the quality of the care provided in these newly certified and some previously certified homes.

Cuyahoga County's efforts to increase the quality of child care set some standards for providers that exceed those mandated by the state of Ohio. Table 5.1 highlights differences in standards, indicating those that are added or are higher for certified County child care providers.

Table 5.1 Differences in Standards for Family Child Care Home Certification – Cuyahoga County and State of Ohio

Standard	State of Ohio	Cuyahoga County
Provider training	Providers must complete 12 hours of training during the first year of certification, then complete six hours of training per year until they have a total of 30 clock hours of training	Providers must complete 30 hours of training prior to certification and taking children into care
	30 hours of training consists of information about health, safety and fiscal matters	Initial training is the same as that required by the state
	Not required	Substitute caregivers must complete 30 hours of training in advance of employment
	No training beyond the 30 hours is required	ECI providers are offered the opportunity, on a voluntary basis, to participate in pre- and post-certification technical support visits
Criminal background check	Forms be submitted prior to certification and conditional certification is granted prior to obtaining results of the background check	Criminal background checks must be completed before a provider is certified
Health and safety standards	Not required	Providers who rent space for child care must obtain approval from property owner
	Not required	Provider must obtain abuse/neglect clearances prior to providing care
	Requires one emergency caregiver	Requires one emergency and one substitute caregiver
	Must have medical/physical updated every three years	Must have medical/physical updated annually and exam cannot be more than six months old at time of certification
	Not required	Additional first aid supplies required: Flashlights, scissors, thermometer, safety pins in various sizes, two inch gauze roller, and cotton towels/sheets

The higher standards for certification and requests that providers participate in quality enhancement services may eliminate some who would otherwise enter the system to care for children. In addition, although providers may refuse quality enhancement visits at any time, as participation in these visits is completely voluntary, some may feel pressured to accept these visits. These feelings could result in providers leaving the family child care system. Last, the Initiative's attempts to move providers to a higher level still, through use of the *FDCRS* as an assessment tool, may cause providers to feel angry or distressed when they are aware that providers in other counties do not have to meet these standards, or recognize that other providers within the County are not participating in the voluntary program.

Figure 5.1 shows the intervention strategies and intended outcomes of the Family Child Care Homes (FCCH) component. As indicated, the component is expected to expand the number of slots so that capacity is enhanced and there are sufficient homes to meet the demand for family child care settings. Starting Point hoped to reduce the amount of time required for provider certification as one strategy for increasing the number of providers. The organization also expected that the Regional System would help providers to attain a more professional orientation to the work and to use other training and supportive services. The efforts of staff (technical assistance providers and training staff) in the Regional System were expected to result in increases in the provision of developmentally appropriate care over time. The evaluation is focused on examining the early and intermediate outcomes of the provider-oriented strategies.

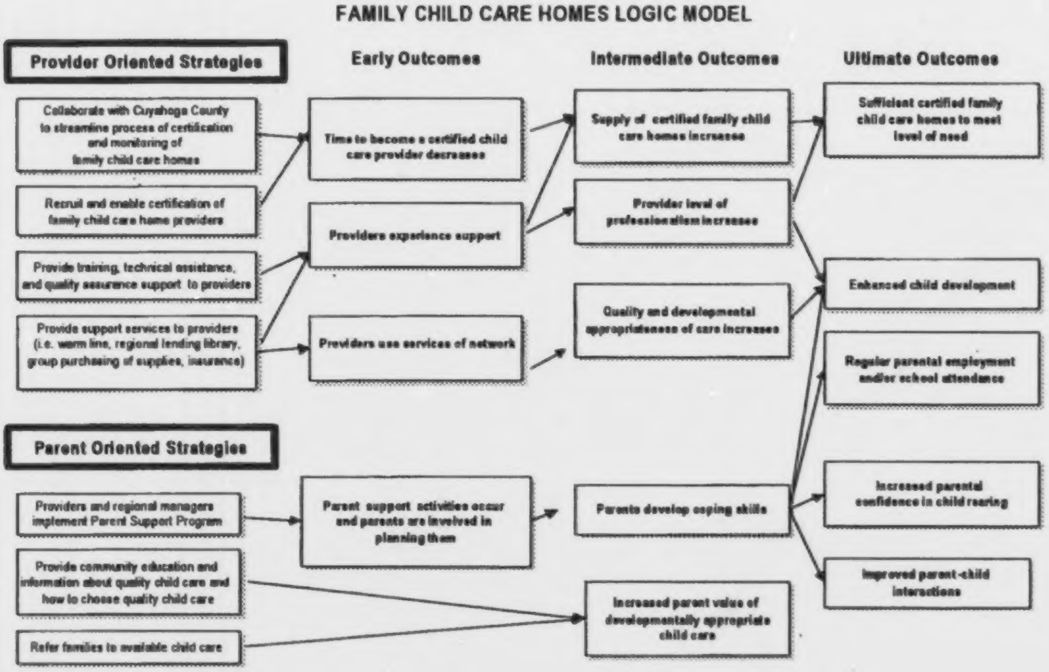
FAMILY CHILD CARE HOMES LOGIC MODEL
Provider Oriented Strategies
Early Outcomes
Intermediate Outcomes
Ultimate Outcomes
Collaborate with Cuyahoga County to streamline process of certification and monitoring of family child care homes
Recruit and enable certification of family child care home providers
Provide training, technical assistance, and quality assurance support to providers
Provide support services to providers (i.e. warm line, regional lending library, group purchasing of supplies, insurance)
Time to become a certified child care provider decreases
Providers experience support
Providers use services of network
Supply of certified family child care homes increases
Provider level of professionalism increases
Quality and developmental appropriateness of care increases
Sufficient certified family child care homes to meet level of need
Enhanced child development
Regular parental employment and/or school attendance
Parent Oriented Strategies
Providers and regional managers implement Parent Support Program
Provide community education and information about quality child care and how to choose quality child care
Refer families to available child care
Parent support activities occur and parents are involved in planning them
Parents develop coping skills
Increased parent value of developmentally appropriate child care
Increased parental confidence in child rearing
Improved parent-child interactions

Figure 5.1 Family Child Care Homes Logic Model

The ECI's goal of increasing capacity and improving quality of the family child care home system in the County in a short amount of time was admittedly ambitious. The higher standards discussed above could have easily resulted in attracting fewer providers than in other areas of the state. However, the County has a waiting list of potential providers and in fall 2001 obtained a waiver from the Ohio Department of Job and Family Services, allowing it to slow the rate at which it responds to certification requests. Maintaining a sufficient supply and increasing the quality of care still could be a challenge for Starting Point and the Regional System. As noted above, child care quality is often poor to fair across the country, especially in family child care homes. Also, little is known about ways to improve child care quality. Thus, the County's efforts during the past three years and in succeeding years may provide opportunities to document strategies for increasing capacity, improving quality, and informing public policy in this area.

The Regional System – Its Plan for Building Capacity and Improving Quality

As part of the ECI, Starting Point, the County's child care resource and referral service, was charged with coordinating the system of family child care provider recruitment, training, and support. Starting Point seeks to provide information, enhance quality, increase resources, and stimulate the growth of child care services in Northeast Ohio (Starting Point, 1999a; Starting Point, 1999b). Starting Point contracts with four regional organizations in its work for ECI: 1) Applewood Centers, Inc., 2) the Children's Hunger Alliance (formerly the Ohio Hunger Task Force), 3) Early Childhood Options, and 4) Neighborhood Child Care, Inc. Together, these organizations have formed a Regional System to provide training and technical supports that increase the capacity and enhance the quality of family child care in the County. As manager of the Family Child Care Homes (FCCH) Regional System in Cuyahoga County, Starting Point focused its efforts in several areas to develop and implement the capacity building and quality enhancement service of the Regional System.

- The FCCH component intended to expand, as quickly as possible, the number of sustainable, quality Type B child care slots (i.e., homes with one caregiver and a limit of six children under the age of six) to create a lasting child care system serving all children in Cuyahoga County.
- Through the Regional System, neighborhood based services were to be stressed.
- The FCCH component would assist families with typical child care needs as well as those with special needs.
- The Regional System would train, monitor, and offer other supports to improve the quality of child care services in an efficient and well-coordinated manner.
- As much as possible, family child care homes certified prior to the start of the ECI in July 1999 would be integrated into the FCCH Regional System.
- After capacity building efforts were achieved, the Regional System would maintain services and enhance the quality of care in the family child care homes established during the first year of the Initiative.

The following discussion highlights the key elements and objectives of the FCCH component during the past three years.

Creation of New Certified Family Child Care Homes:

The Regional System was to be responsible for certifying 1,025 homes during the first year of the Initiative. Regional organizations were to assure care availability for typically developing children and for children with special needs (children who would need assistance and support to be retained in a specific child care setting).

Technical Support and Quality Assurance/Care for Kids:

Regional staff members were to deliver a minimum of 15 pre- and post-certification technical support visits to each new provider to assist her in offering developmentally appropriate care and in operating a small business. These visits were more specifically described in the second year to include four USDA Child and Adult Care Food Program visits and *Family Day Care Rating Scale* (*FDCRS,* or what is referred to as the "Thelma Harms") assessments for each new family child care home provider, once certification was completed. A total of 11 post-certification visits were to be made to each provider. In November 2000, Starting Point launched the quality enhancement program known as "Care for Kids," featuring the visits described above, assessments of child care provider skill, and attention to provider learning needs. Starting Point implemented Care for Kids within the Regional System, adding seasoned providers to the system in July 2001. It is important to note that enrollment and participation in the quality enhancement services, Care for Kids, by either the newly certified or the seasoned providers, is purely voluntary.

Regions were to identify mentors who would have a clearly defined role and set of activities with and for providers. Staff would also offer a minimum of four in-service training sessions per year on key issues and concerns for providers. Regions were to implement a quality assurance program that included ongoing monitoring of providers, and strategies for corrective action where problems existed. The System would offer a lending library of educational toys and materials, information and referral services for providers to link them with community resources and assist them in improving quality, and it would implement training and support for informal child care providers.

The System was to create an incentive program to encourage existing providers to participate in on-going technical support and training. Staff was responsible for implementing a quality enhancement program that included assessment of homes using the *FDCRS*, creation of professional development plans based on the results from the *FDCRS*, and provision of training and technical support aimed at continuous quality improvement. The development plans could include use of an agreed upon educational curriculum, strategies for corrective action as necessary, and ongoing monitoring. Last, an objective specified that staff would provide an average of 8-to-10 technical support visits per year (including USDA food visits and *FDCRS* assessments) for providers certified prior to 1999 who agreed to participate in the FCCH quality enhancement program.

Parent Education and Support:

The Regional System was to provide information and referral services for parents, including support activities and information regarding developmentally appropriate parenting and care for children, children's health insurance, and other services (i.e., Early Start and Early Intervention, the Special Needs Child Care Initiative, Starting Point's Child Care Training program, the Women, Infants and Children (WIC) program, and family planning). Family child care providers would also learn about strategies for encouraging parent-determined education and support activities.

Administration:

The System intended to establish a management information system (MIS) and each of the regional organizations was expected to provide required information in a timely fashion. The MIS would collect, update and report data on each region's operations, activities and outcomes. Each organization was expected to submit required program and financial reports.

Staff was expected to use processes and forms prescribed by Starting Point for certification and quality enhancement activities and to participate in mandatory meetings and training sessions. The organizations were to develop and maintain inventories of providers who offer substitute care and of those who are available to accommodate children with special needs. They were also asked to collect and share profiles of successful FCCH providers. Last, each organization was required to maintain accountability for granted funds and oversight of any subcontractors or partnerships they formed to conduct required activities.

The Evaluation Plan – A Brief Introduction

This study of the ECI family child care component evaluates both the objectives of increasing the number of homes and enhancing the quality of care in those homes. In this examination, several sources of data have been used. Starting Point has provided an administrative dataset that contains information about all providers trained and certified during the first three years of the Initiative. Using these data, the number of homes certified was assessed and the training and technical support activities that occurred during the first three years of the Initiative have been examined. Focus group discussions were conducted with technical assistance providers who are staff in the Regional System. Independent observations of child care quality were conducted at two points in time with a random sample of providers selected from the Starting Point dataset. Methods used in each portion of the study are discussed, followed by findings related to program implementation and the population of FCCH providers, the focus group discussions, and the quality of child care observed in the sample of home providers.

Methods Used in the Study of Family Child Care

Several types of data and analyses have been used to determine if the FCCH component achieved its capacity building and quality improvement objectives. Data sources, methods, and sample groups are described in the following sections.

Data Sources and Collection:

Administrative Data

Starting Point provided administrative datasets with information about family child care providers certified in Cuyahoga County during the initial three-year period of the ECI. Data included demographic information such as provider name, address, date of birth, education, gender, and date of certification as well as regional location. Additionally, information was available about provider participation in the voluntary quality enhancement services, Care for Kids. These datasets have been consistently updated during the period of the evaluation. Data provided descriptive information for discussion of the population of FCCH providers, for mapping providers' locations, and for enumerating pre- and post-certification technical support visits. The datasets were also used to select the random sample of providers for observations and interviewing.

Cuyahoga County's child care voucher dataset provided a second administrative data source. The dataset contains information about payments made to child care providers and numbers of children for whom payments are made. These data were used to analyze payments to family child care providers during the ECI.

Focus Group Data

A focus group protocol was developed and used in each of the groups based upon the research questions. Data were collected in response to five questions. Technical assistance (TA) providers were asked to describe their efforts with family child care providers and to assess the responsibilities and challenges in the work. They discussed their backgrounds and education. They indicated the ways in which technical assistance might be helpful and talked about use of the FDCRS as an assessment tool. Last, they discussed their perceptions of quality in a family child care setting.

A facilitator and co-facilitator were present in all of the groups. The facilitator introduced the research and obtained consent. She asked the questions, probed for responses, reviewed the content of the discussion, and thanked the participants. The co-facilitator took notes, managed the recording equipment, and used deep probing questions to add richness and specificity to the discussion. The groups each lasted approximately two hours.

Each group session began with introductions and a discussion of informed consent. After consent forms were signed, the group's purpose was reviewed and the questions were asked. Approximately 20 minutes was allowed for discussion of individual questions. About 15 minutes prior to the group's ending time the discussion was concluded, the contents were reviewed with participants, and they were asked for additional input. At the end of the discussion, participants were thanked and provided with a $20 gift certificate. The session was then concluded.

Provider Sample Data

Observation and interview data were collected from a sample of newly certified family child care providers at baseline (Time 1) and then again 12-months later (Time 2) after they had received technical assistance aimed at improving the quality of care. The twelve-month period between observations was chosen based on work by Jaeger, Shlay, and Weinraub (2000) who recommend waiting at least 12-months to assess the effects of intervention because it takes time for providers to "own" the ideas introduced during the intervention.

To identify the sample for the study, five waves of family child care providers (totaling 625 providers) were selected randomly from the Starting Point dataset. Prospective respondents were contacted first by a postcard and then by phone. Of the 625 providers contacted, 62 (10%) were not providing child care, 9 (1%) provided after school care only, and 135 (22%) could not be reached by telephone because of disconnected phone numbers or by mail because of incorrect addresses. Of the remaining 419 providers, 135 (32%) providers agreed to participate in the study.

During the baseline data collection phase, which occurred between March 2001 and December 2001, observation and interview data from the 135 family child care providers who agreed to participate were collected. The second phase of data collection began in March 2002 with attempts to schedule Time 2 observations with the 80 providers who had been observed as part of the Family Child Care Homes Interim Report (Pearlmutter, Grayson, Withers, Peisner-Feinberg, & Bryant, 2001). Visits with 59 of these 80 providers could be scheduled. Data from visits to nine providers who are part of the complete sample of 135 providers visited during Time 1 also are included in this report bringing the total provider sample for this final report to 68.

During year one of the study, data collectors received training on administering the *FDCRS* and the *Caregiver Interaction Scale* (*CIS*) (Arnett, 1989) during a two-day classroom in-service. After completion of the classroom training, each data collector attended at least three observations of family child care providers with the trainer. Following each of these visits, the data collector and trainer met to complete inter-rater reliability for both the *FDCRS* and the *CIS*. All data collectors were expected to reach an inter-rater reliability level of at least 85% on both instruments before they were allowed to complete visits to providers on their own. In addition to attending the mandatory classroom training and the initial provider visits, the group of data collectors met every two-or-three weeks for a period of four months to discuss concerns or raise questions regarding use of any of the observational or interview measures. Inter-rater agreement was assessed for 48 (36%) of the 135 first time observations. While a consensus score was the value entered into the data file for analysis, an assessment of inter-rater reliability on the pre-consensus coding for the two measures of global quality using Cohen's kappa was .6, considered to be in the good range. (Cohen's kappa measures the agreement between the evaluations of two raters when both are rating the same object and corrects for chance. A value of 1 indicates perfect agreement.)

During year two of the data collection period, two of the observers from year one remained on the project and two data collectors were added. Data collectors and the trainer met for several days of training during late winter to review the observation and interview materials. Follow-up meetings were held at least once a month to confirm scoring decisions. For the second observations, 41 (60%) of the 68 visits were inter-rated. Cohen's kappa on the pre-consensus scores was .55, or fair, for the two measures of global quality at Time 2.

Data collectors visited providers for approximately three hours per observation, usually during the morning. Observations were scheduled when the children would be awake and engaged in typical daily activities and when at least one meal or snack could be observed. Upon arrival to the child care home, the consent form was reviewed and the provider's consent obtained. Observers then moved to an area of the home where the provider could be observed easily but where the observers were removed from the activities. Providers were asked to maintain their usual agenda. A bilingual observer visited those providers who speak Spanish.

As compensation for their time, all sample providers received at each visit $40 gift cards to one of two major grocery stores in the community for participating in the study. Those providers who declined to participate in the observational study but were willing to provide demographic data each received one $20 gift card to one of two major grocery stores.

Measures used with the provider sample: During both observations to providers, data collectors completed two observational measures, the *FDCRS* and the *CIS*, which together provide a measure of the process quality of child care, (i.e., the quality of the interactions between children and peers and caregivers and the nature of the learning experiences available to children). The *FDCRS* is a widely used measure of process quality that assesses characteristics of the physical environment such as space and furnishings, as well as personal care routines, provider needs, and the language and reasoning, social, and learning experiences of the children (see Peisner-Feinberg et al., 2000; Jaeger et al., 2000; Kontos et al., 1995 for other studies that have used the *FDCRS*). Scores on the *FDCRS* range from 1 (*inadequate*) to 7 (*excellent*) with scores from 1 to less than 3 considered "inadequate" or "poor", scores from 3 to less than 5 considered "minimal" or "fair", and scores from 5 to 7 considered "good". Appendix 5.3 provides an example of a Basic Care item with descriptions of equipment and behaviors required for each scoring level.

The *CIS*, another process measure, specifically rates the quality of a provider's interaction with children on a scale from 1 (behavior is "*not at all*" evident) to 4 (behavior is "*very much*" evident) (see Peisner-Feinberg et al., 2000; Kontos et al., 1995 for other studies that have use the *CIS*). The *CIS* includes 26-items relating to four subscales: sensitivity (the provider is warm, attentive, engaged), harshness (the provider is critical, threatens children, is punitive), detachment (the provider is minimally interactive, minimally interested in the children), and permissiveness (provider ignores misbehavior or minimally supervises the children in her care).

Additional information was collected from each provider through a phone interview that occurred following each of the observations. During the interview, providers were asked about their child care program, e.g., "what kinds of special services do you provide?", their background, e.g., "what is your highest level of education?", participation in professional development activities related to child care, and levels of stress related to work as a caregiver.

Data Analyses:

Population and Visit Data Analyses

Starting Point's administrative data set and the County's child care voucher dataset were examined to provide information about Regional expansion of family child care slots, pre- and post-certification visits, and payments to child care providers. Descriptive statistics are used to explain capacity building efforts and to describe the TA visits.

Focus Group Data Analysis

Group discussions were audio-recorded and transcribed. Transcriptions were reviewed to identify specific responses to questions, cross-cutting themes, and underlying issues that emerged from the discussion. The facilitator and co-facilitator reviewed what they had heard and reached consensus on responses to questions within each group and across the groups. In addition, they discussed themes and developed agreement about underlying issues.

Provider Sample Data Analyses

Observation and interview data were analyzed using descriptive statistics, comparison testing, correlation measures, and Repeated Measures Analysis of Variance. These analyses allowed description of the quality of the child care homes in the sample and understanding of the influence of various independent factors (e.g., number of technical assistance visits) on quality outcomes.

Sample Descriptions:

Focus Group Sample

A total of 16 staff members (out of a possible 19) participated in the discussions. A few of the participants were responsible for training in their regions. However, most had the provision of technical assistance as their primary responsibility, either for the ECI-related family child care homes (FCCH) program only, or for both the USDA child care food program and the FCCH program. Participants were, for the most part, paraprofessionals. About 1/3 had a college degree and a few others had associate's degrees. Some had been child care providers or residential child care workers previously, while others had begun the work with little or no child caring experience. For the most part, participants were under age 40. More than half were African American, a few were White, and two had Hispanic ethnicity.

FCCH Provider Population and Observed Provider Sample

The provider data set contains demographic information for all of the family child care homes as part of the Early Childhood Initiative. Data for a total of 1,501 providers are included. Two of those are providers who residences are physically located outside the County but are included since they provide care to children from Cuyahoga County.

Education levels: Data on the highest level of education each provider completed were available for the entire population of 1,501 providers. Based on these data, it was found that 12% of the providers had some high school or less, 56% had a high school diploma or a GED, about 29% had some college, and about 3% graduated from college or had post-graduate education. For the observational sample (*N*=68), 16% of providers had some high school or less, 55% had a high school diploma or a GED, about 26% had some college, and finally, about 3% graduated from college or had post-graduate education.

Age and gender: Age and gender information was available for 1,498 providers in the population of family child care providers. Providers in the administrative data set ranged in age from 18 years to 77 years with an average age of 37 years. Ages ranged from 22 years to 68 years for providers in the observed group with an average age of 39 years. With regard to gender, for the sample of 1,499 providers, 99% of providers are female; in the observed sample, 100% of providers are female.

Race: Data regarding race were available for 1,373 providers. Of the provider population, 83% were African American, 11% were Latino, 5% were White and less than 1%

were Asian or other category. In our observed sample, 79% were African-American, 9% were Latino, and 12% were White.

Overall, these data on education, gender, and race suggest that the sample of providers is similar to the population of recently certified Type B family child care home providers in Cuyahoga County although providers who are White are slightly over-represented in the sample. Table 5.2 summarizes these provider characteristics.

Concerns about sample bias led to the collecting of data from 122 of the 284 providers who had declined to participate in the observational portion of the study. This group of 122 providers was willing, however, to provide demographic data. Based on analysis of the data, these 122 providers were similar to the population of providers and the study sample providers on factors such as highest level of education, average age, and gender but differed on the percentage of providers by race. Slightly more African-Americans were represented in this group of non-participant providers than in the population or the sample.

Table 5.2 Characteristics of All Certified Family Child Care Providers and Sample Providers

	All Certified FCCH Providers	Sample
Education Level	(*N*=1,501)	(*N*=68)
Some HS or less	12%	16%
HS diploma or GED	56%	55%
Some college	29%	26%
BA/BS or higher	3%	3%
Age	Mean = 37 years	Mean = 39 years
Gender	99% Female	100% female
Race	(*N*=1373)	(*N*=68)
African-American	83%	79%
Latino	11%	9%
White	5%	12%
Asian or Other	1%	0%

Source: Starting Point Data. Analysis of data by Center on Urban Poverty and Social Change.

Findings

The following sections describe the findings from the three portions of the study of the FCCH component of the Early Childhood Initiative. First, the efforts of Starting Point and the Regional organizations to increase family child care capacity through constructing a Regional System are presented. Next, findings from the focus group discussions with TA providers are shown to indicate perceptions of the technical assistance work and the process of delivering visits to family child care providers. Finally, results from the study of quality in an observed sample of providers are presented.

Building Capacity – Implementing the Regional System and Its Outcomes:

The following discussion indicates the ways in which Starting Point and the four Regional organizations implemented the programs to both increase the number of family child care homes in Cuyahoga County, and enhance the quality of care provided in the homes.

Increase Number of Certified Family Child Care Homes

During Year 1 of the FCCH component of the ECI, 695 providers were certified. An additional 733[2] providers were certified during the second year, and 71 more were certified during year 3, both to continue to build capacity and to replace those providers who had not retained their certification. Efforts during the first two years of the Initiative exceeded previous County certification achievements, which had resulted in only 250-400 new providers a year. Clearly, implementation of the FCCH component increased the rate of new certifications for family child care homes. Table 5.3 shows the number of certified homes by region for years one through three of the Initiative. During Year 1 of the Initiative, each of the regional organizations was expected to recruit between 235 and 270 home-based providers. None had achieved its recruitment goal by the end of the first year. However, the organizations achieved and surpassed their original goals during the ECI's second year.

Table 5.3 Certified Homes by Region – Years 1 Through 3

Regional Manager	Homes Certified Year 1	Homes Certified Year 2	Homes Certified Year 3	Total
Applewood Centers, Inc. (ACI)	151	200	16	367
Children's Hunger Alliance (CHA)	158	153	5	316
Early Childhood Options (ECO)	211	231	25	467
Neighborhood Child Care, Inc. (NCCI)	175	149	25	349
Total	695	733	71	1,499

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

By June 30, 2002, a total of 1,499 providers had received initial certification as indicated in Table 5.3. This number represents more than a 150% increase over the number of certified providers in June 1999, prior to the implementation of the ECI (B. Osborne-Fears, personal communication, August 2, 2002). Of these 1,499 newly certified providers, 257 providers (or 17.1%) are no longer certified at the end of Year 3 of the Initiative. Either they have not renewed their certification, have stopped providing child care, or have been terminated from providing care by the County. Earlier studies, using both local and national data have shown larger attrition or turnover rates than the Initiative's. Kontos et al. (1995) report that 18% of their sample of 227 family child care home providers were no longer providing care 12 months after the initial research visits. An additional 22% of their sample was unreachable and assumed to be no longer providing care. Nelson (1991) and Atkinson (1993), working with smaller samples, reported turnover rates among family child care providers to be 37% and 35%, respectively. Howes and Brown (2000) report that child care center provider turnover rates, at 30% per year, "are among the highest of any profession tracked by the U.S. Department of Labor" (p. 8).

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[2] Two out-of-County providers were also certified during the second year. One in Summit County is no longer providing care; the second is a Geauga County provider. Both were certified so that they could receive child care subsidies for children residing in Cuyahoga County. They are not included in this number, or in the total of 1,499 providers discussed below.

Distribution of child care homes: Figure 5.2 shows a map of the distribution of family child care providers throughout Cuyahoga County.[3] Most homes are clustered on the east side or in small sections of the west side. These clusters clearly target neighborhoods in which families transitioning from cash assistance to employment live. Figure 5.3 shows a map of child care and Head Start Centers. While there are overlapping locations for child care homes and centers in some areas, several neighborhoods or areas offer families few choices in type of care arrangement for their children. The overall number of child care slots in an area might be sufficient; however slots in family child care homes might predominate. Areas such as these include Glenville, Hough, St. Clair-Superior, Central and Fairfax. Despite the remaining gaps, the FCCH component has clearly broadened the availability of child care slots in many neighborhoods where there was significant need prior to 1999.

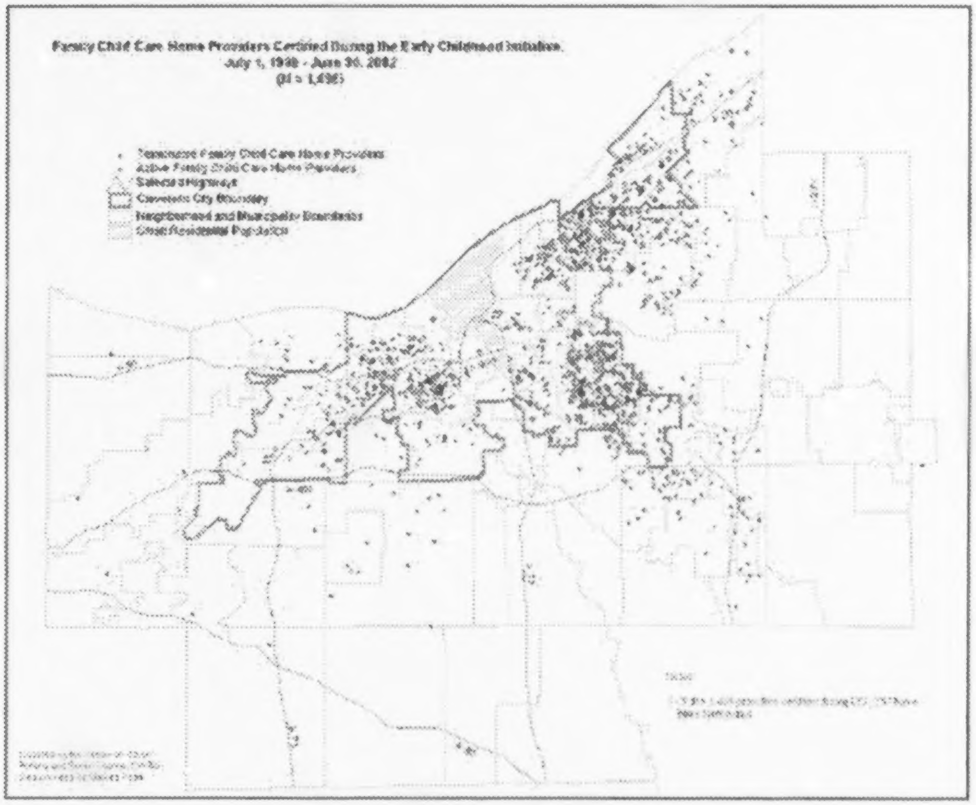
Family Child Care Home Providers Certified During the Early Childhood Initiative,
July 1, 1998 - June 30, 2002
Terminated Family Child Care Home Providers
Active Family Child Care Home Providers
Selected Highways
Cleveland City Boundary
Neighborhood and Municipality Boundaries

Figure 5.2 Geographic Distribution of Family Child Care Providers

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[3] The map in Figure 5.2 actually shows only 1,498 homes. One home is in Chagrin Falls and it is geocoded to Geauga County, although it is located in Cuyahoga County.

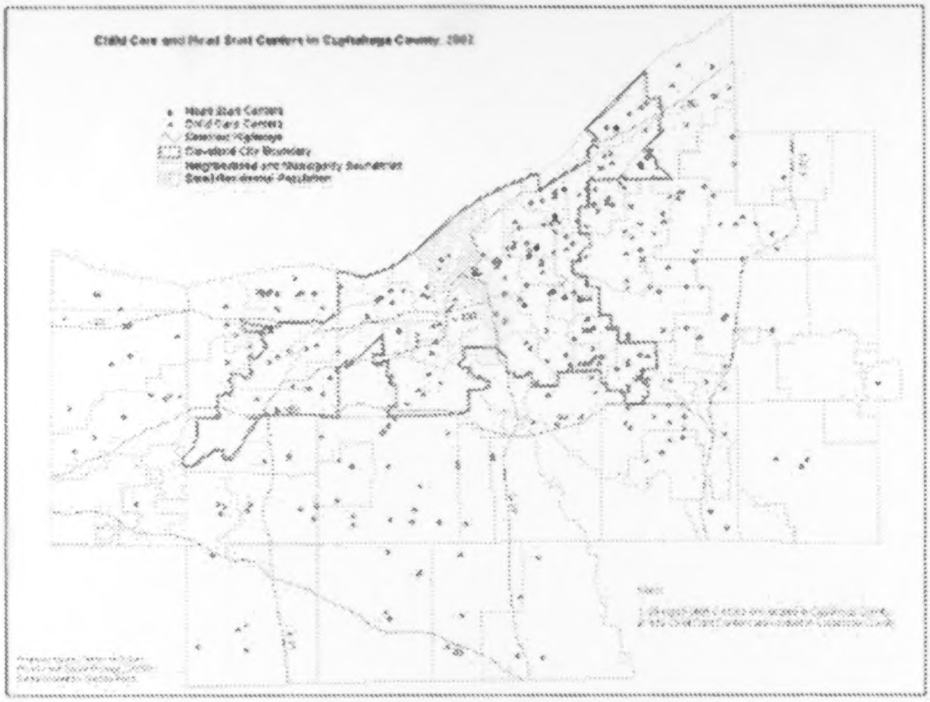

Figure 5.3 Geographic Distribution of Child Care and Head Start Centers

Certification Dates and Initial Training

The average length of time between a provider's training dates and certification date during the first year of the ECI was more than three months. In the second year, the average length of time was about seven months. During the third year, far fewer providers received certification (only 71), and time between training date and certification for these providers averaged about 11 months. This increase was contrary to the early outcome indicated in the logic model (Figure 5.1). Many factors seemed to be related to delays in the certification process, including the many steps involved, the County's waiver that permitted staff to focus on providing technical assistance (rather than continuing to certify new homes), and provider delays.

Table 5.4 shows the average number of weeks between initial training and certification in each year of the Initiative for those providers certified during ECI whose training and certification data are available. Length of time between pre-service training and certification is reported for the 1,163 providers (19 providers had been certified prior to training and training dates were unavailable for 317 providers, many of whom had been trained prior to the start of the ECI in July 1999).

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Table 5.4 Average Number of Weeks Between Training and Certification Dates for Providers Trained and Certified During ECI (N=1,163)

Year	Number of providers certified	Mean (*M*) number of weeks	Standard Deviation (*SD*)	Range (weeks)
1	429	20.5	10.38	1-47
2	669	24.4	16.09	1-92
3	65	46.0	20.74	12-102
Total	1,163	24.2	15.62	1-102

Note: Of the total 1,499 certified providers, training data were available for only 1,163 providers. The remaining 336 providers were not included in the analysis (19 providers were certified prior to training and no data regarding training were available for 317 providers).

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

An explanatory note about the certification process: Reports from Regional System staff indicate that the process of certification is lengthy and complex. Appendix 5.1 shows the steps involved in the process. Certification may be delayed for several reasons. The provider may fail to complete paperwork in a timely manner or she may not go to the County office to sign a contract. The certification process may be prolonged by personal events in the life of a potential provider or by other employment opportunities. If a provider moves, her new residence requires additional review for certification and if she moves during the certification process, there is a delay. Regional managers reported that one of the primary contributing factors to delays in certification was the condition of a potential provider's residence. In some cases, the poor condition of homes resulted in certification being postponed until violations were corrected.

Housing problems are not unique to family child care in Cleveland. The Enterprise Foundation, a national organization that works with community partners to provide low-income people with affordable housing, safer streets and access to jobs and child care, has developed programs in several cities to strengthen family-based child care by improving the quality of providers' homes (Enterprise Foundation, 2001). In Cleveland, Starting Point staff is working with the local Enterprise Foundation office to implement a similar initiative. The first of 20 family child care providers has recently moved into her own home as a part of this project, which targets seasoned certified providers (i.e., those with two or more years of experience) for home purchase and/or renovation.

Certification also may have been delayed during the Initiative's second year because the Regional System had reached its capacity building goal and had expanded the number of available child care slots far beyond original expectations. While many existing slots had not been filled during this time, state regulations required the County to continue certifying new providers even though there would likely be no new children to enroll. Cuyahoga County sought and received a waiver from the state in July 2001 to delay certification of new family child care homes.

Voucher Payments to Providers

An examination of County child care voucher payment data indicated that 1,243 of the home-based providers had received a voucher between March 2000 and March 2002. Voucher payments to these providers have increased on average each year. Between March 2000 and March 2001, average monthly payments increased by $235, although monthly payments per child decreased on average $62. This phenomenon may have occurred because providers received retroactive pay and then returned to regular rates of pay. During the next year, however, both monthly income and payments per child increased. Providers were earning an average of almost $1,860 per month in March 2002 and were receiving an average of $411 per child per month at that time.

Table 5.5 Voucher Income for Family Child Care Providers (N = 1,243)

	Average Monthly Income per Provider			Average Received per Child		
	March 2000	March 2001	March 2002	March 2000	March 2001	March 2002
Mean	$1,176	$1,411	$1,859	$395	$332	$411
Median	920	1,142	1,571	400	330	399
Minimum	41	2	32	35	.80	20
Maximum	6,788	8,766	7,268	621	690	722

Source: Cuyahoga County, Department of Work and Training. Analysis of data by Center on Urban Poverty and Social Change.

During the same period of time, providers increased the number of children in their care. In March 2000 providers were caring for an average of three children. By March 2002, that number had increased to more than four. Over the course of the three-year period, some providers may have cared and received voucher payments for as many as 23 different children during one month. It may be possible to provide care for far more than the six children under the age of six, for whom a "Type B" child care home is certified. Providers may care for their own children and they may provide care during different times of the day. Thus, they may have infants and pre-schoolers beginning in the morning, school-aged children in the afternoon, and other children arriving mid-to-late in the day and staying through the evening.

Increase Quality of Family Child Care Homes Through Technical Support

Technical support visits: An FCCH objective for the first and second years was to assure that newly certified providers would receive 15 technical support visits - three or four pre-certification visits and 11 post-certification visits. For providers involved in the USDA Food Program, four of the technical support visits are required food program visits. Table 5.6 shows the number and types of visits made to family child care home providers in each of the three years of the Initiative. During Year 1 of the ECI, TA providers delivered a total of 1,588 pre-certification and other visits that were not considered a part of the quality enhancement services. These included visits addressing space and furnishings, meals and snacks, and operating a home-based business (opportunities for professional growth). They conducted 681 post-certification visits, including 76 assessment visits (these are used to determine the provider's score for various components of the *FDCRS* and to develop a plan for quality enhancement in areas assessed by the *FDCRS*). In Year 2, TA providers conducted 3,368 pre-certification and other visits and 3,804 post-certification visits, including 713 assessment visits. In Year 3, pre-certification and other visits (i.e., meals and snacks and opportunities for professional growth) totaled 2,668 and post-certification visits totaled 4,853. A total of 883 assessment visits were conducted as part of the post-certification technical assistance. See Appendix 5.2 for a listing of the total number and types of visits made to providers in years one through three of the Initiative.

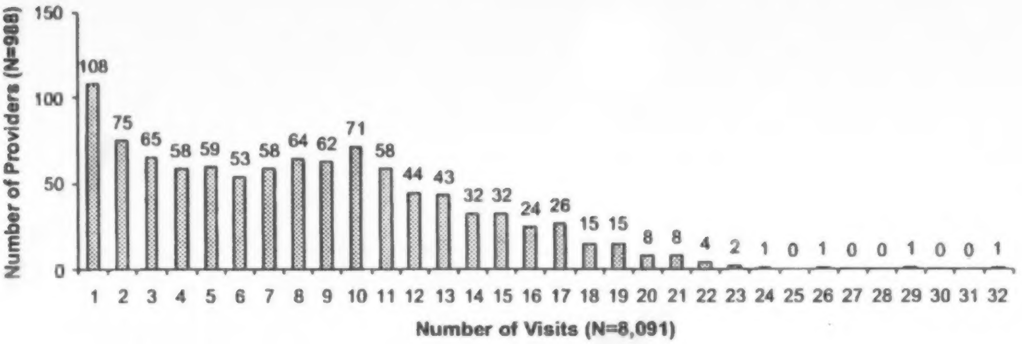
Table 5.6 Pre- and Post-certification Visits by Year

Type of Visit	Year 1	Year 2	Year 3	Total Visits
Pre-certification Visits				
Space and Furnishings	1,161	675	0	1,836
Meals and Snacks	394	1,451	1,430	3,275
Opportunities for Professional Growth	33	1,242	1,238	2,513
Total Pre-certification and Other Visits	**1,588**	**3,368**	**2,668**	**7,624**
Post-certification Visits				
Assessment Visits	76	713	883	1,672
All Other Quality Enhancement Visits	605	3,091	3,970	7,666
Total Post-certification, Quality Enhancement Visits	**681**	**3,804**	**4,853**	**9,338**
Total Visits	**2,269**	**7,172**	**7,521**	**16,962**

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

To determine the number of technical support visits a provider might receive following her certification, an analysis of visits that providers received within 24 months of their certification date was completed. A total of 988 providers were certified for at least 24 months between July 1999 and June 2002. They received 8,091 post-certification visits focused on improving quality of care during the two years following their certification. The range of visits was from 1–32 and the mean number of quality enhancement visits over the two-year period was 8.2. Figure 5.4 shows the number of quality enhancement visits provided within 24 months of certification, for those providers who received at least one visit.

Beginning in Year 2 of the ECI, specific attention was given to technical support visits as a mechanism for increasing the quality of child care. The quality enhancement program begun in November 2000 was designed to assist and support family child care providers in offering good quality child care and operating successful businesses. Regional staff worked to enlist both newly certified child care providers and existing family child care home providers into the quality enhancement program, Care for Kids.



Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Figure 5.4 Number of Quality Enhancement Visits Within 24 Months of Certification

The voluntary Care for Kids program includes technical support visits, training opportunities, a lending library, equipment, materials, and other resources for providers. One incentive for participation is the prospect of improved knowledge and skill in providing child care. During the first year of the project, however, providers were reluctant to participate. In the Spring of 2001, the County introduced a financial incentive for those who participate in Care for Kids. The Board of County Commissioners approved a 5% increase in the daily child care fee paid to home care providers who enroll in Care for Kids, and an additional 5% for those who complete the program and achieve desired levels of quality. To earn the quality incentive, providers must score at least 5 on the 7-point scale of the *FDCRS*, to be administered through Starting Point. Incentive payments to providers were delayed, however, because of negotiations between providers and the County that were intended to set new child care payment rates based on increased state payment ceilings, and few received the incentive until Spring 2002 when the County was able to begin making these payments.

Quality enhancement visits: Of the 1,499 FCCH providers certified through June 30, 2002, 968 (65%) enrolled in the quality enhancement service component (Care for Kids) and 531 (35%) did not. Those enrolled received a total of 15,458 visits (91% of the total of 16,962 visits). Visits to these providers ranged from 1-54 over the period. A total of 903 Care for Kids providers received quality enhancement visits. The remaining Care for Kids providers received only pre-certification, meals and snacks, or visits that offered information on business development (opportunities for professional growth). While these visits were not included as quality enhancement visits for the evaluation, they may have been valuable in supporting providers. On average, Care for Kids providers with quality enhancement visits received about ten quality visits during the first three years of the Initiative, while providers who did not select Care for Kids but still received quality enhancement visits, had three quality related visits during these years. Technical assistance providers from each of the regional organizations were responsible for conducting quality enhancement visits. For the three years ending June 2002, they completed a total of 9,338 quality enhancement visits to certified family child care homes in their regions. Table 5.7 shows the number and percentages of homes where these visits occurred.

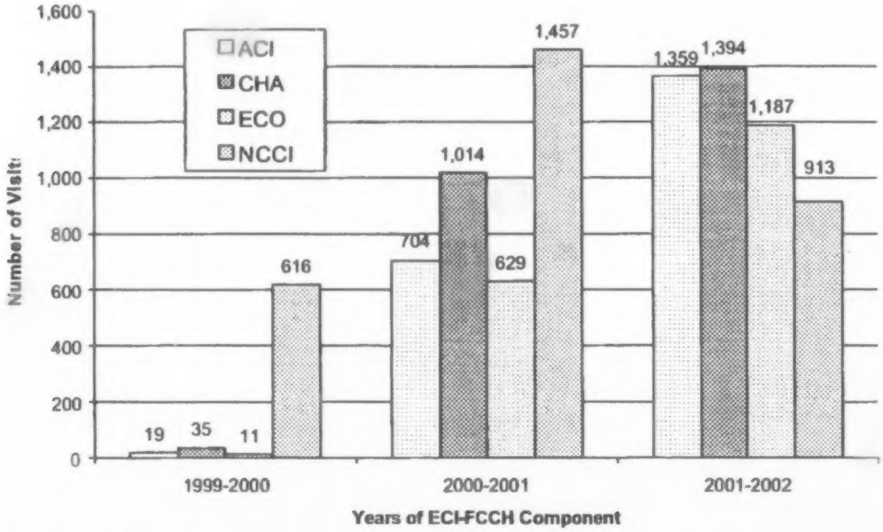
Table 5.7 Number of Quality Enhancement Visits Completed by Region, July 1999 – June 2002

Region	Total Number of Providers	Providers Receiving Visits	Percent Receiving Visits
Applewood Centers, Inc. (ACI)	367	249	67.8%
Children's Hunger Alliance (CHA)	316	255	80.7%
Early Childhood Options (ECO)	467	250	53.5%
Neighborhood Child Care, Inc. (NCCI)	349	337	96.6%
Total	1,499	1,091[a]	72.8%[a]

[a] The total number and percent of child care providers noted here is a duplicated count. Some providers received visits in more than one region, perhaps because they moved from one region to another while offering family child care.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Figure 5.5 shows the number of quality enhancement visits made between July 1999 and June 2002 by technical assistance providers in the Regional System. Differences in number of visits may be related to contractual arrangements, perceived child care provider needs and willingness to participate in the quality enhancement visits at any point in time.



Source: Starting Point data. Analysis of data by Center on Urban Poverty and Social Change

Figure 5.5 Quality Visits Completed by TA Providers in the Regional System

Total visits: Of the total 16,962 visits delivered, 8,885 (52% of all the visits) were for quality enhancement among Care for Kids providers and 453 visits (3% of all the visits) were for quality enhancement among non-Care for Kids providers. The remaining 7,624 visits (45% of the total 16,962 visits) were focused on pre-certification (1,836 or 11% of the visits), meals and snacks (3,275 or 19% of the visits), and "opportunities for professional growth" or operating a business (2,513 or 15% of the visits).

The data shown in Table 5.8 indicate that a total of 1,327 or 88% of providers received visits (957 of the Care for Kids providers and 370 of the 531 non-Care for Kids providers). Table 5.8 presents information about visits to Care for Kids and other child care providers for the three year period ended June 30, 2002. Appendix 5.2 shows all of the visits by type for each year of this component.

Table 5.8 Visits to Care for Kids Participants and Non-participants, July 1999 – June 2002

Visits to Providers	Care for Kids (N=968)	Non-Care for Kids (N=531)	Totals
Total Visits			
# of providers with at least one visit	957[a]	370[a]	1,327
Total number of visits	15,458	1,504	16,962
Mean for those who received visits	15.97	4.19	12.78
Range	1-54	1-23	1-54
Quality Enhancement Visits			
# of providers with at least one visit	903	142	1,045
Total number of visits	8,885	453	9,338
Mean for those who received visits	9.84	3.19	8.93
Range	1-40	1-13	1-40
Pre-certification and Other Visits			
# of providers with at least one visit	949	340	1,289
Total number of visits	6,573	1,051	7,624
Mean for those who received visits	6.93	3.09	5.91
Range	1-25	1-20	1-25

[a] No visit data are available for 11 Care for Kids providers and for 161 Non-Care for Kids providers.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Progress on Other Objectives

Certification of new homes: Starting Point and the Regional Managers continue to use the 30-hour pre-certification training program developed for this Initiative. All applicant family child care home providers complete this training. A total of 2,005 pre-certification visits have been made during the three years of the initiative. TA providers have increased attention to supporting providers who care for children with special needs. During the past three years they have made 250 visits for assisting these child care providers.

Training and other supports: An extensive lending library of materials and equipment is available for provider use. During the spring of 2001 and 2002, the Regional System and the County sponsored a day-long Care for Kids Fair attended by more than 500 new and seasoned providers. Other child care provider training is ongoing through Starting Point and the organizations in the Regional System. In addition, TA providers participated in ten training sessions, including two instruction sessions in use of the *FDCRS*, training to assist child care providers with basic caregiving skills, adult learning principles, quality standards, and strategies for conducting TA visits. They have had two sessions to introduce the Creative Curriculum (Dodge & Colker, 1998) and have learned strategies for encouraging early literacy.

Summary of Findings – Capacity Building Efforts of the Regional System

For the three-year period in which the FCCH component has operated, there has been substantial growth in the number of family child care homes in Cuyahoga County, more than 40% beyond that planned for the Initiative (1,499 homes have been certified versus the 1,025 that were planned). A total of 16,962 technical support visits were conducted during the first three years, including 1,836 pre-certification visits focused on space and safety, 3,275 visits focused on food, and 2,513 visits intended to assist the provider in operating her business. Post-certification visits included 1,672 assessment visits in which TA providers used the FDCRS to determine provider skill needs, and 7,666 visits in which support and technical assistance was delivered to promote quality of care. The quality enhancement program, Care for Kids, was introduced in November 2000. Since that time, 65% of providers have enrolled in its services (968 providers) and 901 of these received at least one quality enhancement visit during the three years. These providers received an average of almost ten quality visits. Of the 359 non-Care for Kids providers for whom there were visit data, 142 (39%) received quality visits, an average of about three quality visits per provider. Voucher payments to providers increased during the three-year period, as did average payments per child. In addition, the average number of children in care increased from three to almost five. While success was achieved in all of these areas, the Regional System was not able to deliver the intended number of visits to providers. During the three-year period, the System goal was to complete 8-12 visits per year to each provider. As indicated above, that goal has not been achieved as yet.

The preceding sections have reported on the implementation of the FCCH portion of the Initiative and have provided information about the 1,499 providers certified between July 1999 and June 2002 and the pre- and post-certification visits made to these providers. The following section describes findings from the focus group discussions with TA providers regarding the process of delivering technical support to FCCH providers.

Focus Groups with Technical Assistance Providers:

To understand the work of the TA providers and gain their perspectives regarding their efforts, views of child care providers, and ideas about child care quality, a series of focus groups was held with TA providers during March and April 2002, in each of the regional offices. Findings from the discussions are presented beginning with the general themes and then responses to the specific questions that were asked.

Themes from the Discussion

Building a trusting relationship with child care providers is of great importance to regional TA providers: Participants reported that the presence and maintenance of this relationship determined their ability to deliver technical assistance. Relationship, social and emotional support comprises the foundation of the work between TA and child care providers.

It is often difficult for TA providers to complete specific, planned lessons with family child care providers: Child care providers are often not prepared for learning. They may be angry at the County child care agency and/or its workers or agitated about some aspect of care provision (i.e., parental behaviors, children's actions, child-provider interactions). They may request answers to questions related to their personal or professional development. TA providers believe that it is important to follow child care providers' leads.

Requirements for completing a specific number of visits or spending a designated amount of time in a home get in the way of the process of work: TA providers believe that they can make decisions about both the number of visits a provider requires, and the amount of time to spend in her home. They often find it difficult to meet both the demands for conducting a large number of visits and for assisting providers in building quality child care.

TA providers describe great creativity in designing learning opportunities for and with child care providers: They observe problems in caregiving and seek ways to address these. They use their experience and training to develop materials, find supplies, and build upon the work providers are already doing. They fill the trunks of their cars with arts and crafts supplies. They seek support from one another in creating projects and solving child care provider problems. They encourage use of loaned materials and books.

Although TA providers need some mechanism for conducting assessments of child care providers' environments and interactive skills, most find that the FDCRS is not the desired tool: TA providers are uncomfortable using the FDCRS as an assessment tool. Even those who could articulate its strengths did not fully understand its use for assessment of provider needs.

Definitions of quality in family child care were diverse and multi-faceted: Whatever their education or training, TA providers recognized both structural and process quality. Highly interactive care, a specific curriculum, and a warm, loving atmosphere were seen as highly desirable. In addition, TA providers wanted to see a home that was clean, in which the provider was prepared to meet children and their parents. They wanted a home that offered stimulation and multiple opportunities for learning.

Responses to Research Questions

Describing the responsibilities and challenges of the TA work: TA providers were asked to describe their work, to indicate strategies that they believed were most helpful in their efforts with child care providers, and to discuss challenges or roadblocks to their efforts to assist providers. Participants reported that their work was important, meaningful, and worthwhile. It allowed them to help people. They believed that the work gave them the opportunity to make a difference with child care providers and to influence the care of children. Their work built child care providers' self-esteem and has depended on a carefully constructed relationship with the child care provider. Their roles are broad and they ". . . do a little bit of everything." Many consider it important to go into each home visit with a plan, but to be flexible.

> We try to go into the home, try to see what's happening. You know when you walk through the door, what areas need to be focused on in the home. . . . It's like you go initially, then you come back with ideas in mind of what you want to do to help the provider. Sometimes it gets accomplished. Sometimes you will go there with one thing in mind, but when you get there, you find that, okay, forget this for today, what's going on here needs more attention. . . . So you can't always go out with one thing to do.

> Care for Kids, it just allows us to get in the door, just straight up in the door. Once we do the initial Care for Kids talk, you know, revealing what the program is all about, what we feel the benefits are, and if the provider agrees to it and they sign up, then we schedule visits. Usually within the next month, it takes that long because we are so short-staffed, by next month, we will come out, conduct the *FDCRS* rating scale with them and that will kind of guide us into knowing what areas of growth the providers have. And then we try to, again, here the key word is "try" with the provider, to work on those areas.
>
> It's not just being a daycare provider, it's everything included. . . . Whatever compliance things they have, we work them so that they get back on track. We are a model for them. When I go and they offer me something to drink or eat, I wash my hands to show them about hand-washing. Or, I'll talk about picking a day for a fire drill or working on a safety issue . . . and then go back and do it with them.

When we asked about challenges to accomplishing the work, discussants told us that sometimes the work was overwhelming and there were unrealistic expectations. TA providers have multiple responsibilities: they work in the food program, handle billing, and must complete a great deal of other paperwork. Sometimes, the technical assistance falls "by the wayside" because of their other responsibilities. They do not have time to both work on building a relationship with providers, which they believe has great value, and accomplish the technical assistance that is required. They thought there were "too many rules, too many demands" they could not meet, and "no leniency to do the job" as they saw it. Often they lacked supplies or materials because their programs did not have sufficient resources to replace materials they used. In some cases, TA providers purchased materials that they brought with them in preparation for their visits.

They indicated that it was sometimes difficult for child care providers to trust them or to continue admitting them to the home. In recent months, they had also struggled to re-engage providers who had been promised an opportunity to receive a 5% payment bonus for participating in Care for Kids, but had not been paid. TA providers indicated that, at times, their "integrity was questioned." Actions or lack of action on the part of County child care workers also presented a challenge, as child care providers and TA providers often worked to define strategies that would resolve certification-related matters:

> They (the County workers) present some real big challenges for me working with my providers, instead of going in and working on what we had planned to work on, maybe basic care, you know, which is a real big issue and concern. I'm trying to help her figure out what's going on, where's her certificate, so she doesn't get taken off the register. And we shouldn't have to be doing that. That shouldn't happen.
>
> Sometimes it takes up to a year to get their new certificate. In the meantime that provider's being taken off the food program or, you know, it's just time being spent on something that could have been better spent in areas the provider really needs.

> They (County child care workers) don't always know the rules and that puts us in the middle. We become the middle person between the provider and the County. . . It's not the role we want.

TA providers also viewed the uncertainty of behavior change as a significant challenge. They indicated that they could bring resources and ideas, but child care providers were not necessarily going to alter their ways of caring for children.

> The thing of it is they're human, you're not going to learn something instantaneous. They've got to unlearn what they learned and then relearn a new subject we're trying to embed in their brains. . . . We cannot expect an adult to just up and unlearn something that we said once to them is not going to work. Everything has to be unlearned and they have to be trained . . . with repetition.
>
> And most of them, especially the young parents, they were taught by parents who didn't know anything about parenting, and so they're taking habits that was learned and passed on through years of . . . ingrained bad traditions, and they're using those to raise their own children. Now they want to raise daycare children in the same ways, because they don't have a professional attitude about themselves to understand that this is a business.

Change was a challenge in other areas as well. TA providers indicated that changing rules, forms, and program requirements created barriers for them. "In-house change" they said, is difficult and confusing. "We have to contradict ourselves a lot of the time." Reactions of TA providers to these changes then affect child care providers who become uncomfortable and unsure about their relationships and work with the TA providers.

A final area of challenge was getting providers to see themselves as professionals. Most described themselves as babysitters and found it difficult to act as owners of a professional business:

> I know basic care is extremely important, but where I sit at with providers, to me professional development is most important. Because when I have to teach you that you have to get up, get dressed, and be prepared to see your children, that has everything to do with a professional standard that has to be set.
>
> I must say that before this program, I would consider myself more of a babysitter. I was more of a babysitter at the time. But now that I see what all it entails, it's a big difference between a home day care provider and a babysitter. It's a certain level of professionalism that you have to have. You have to be structured. You have to be able to have those different experiences available for the children to learn like they should be learning.

TA providers were asked to describe a typical visit. They reported that there was no typical visit. Sometimes the provider was there, awaiting them, and prepared to work. Mostly, however, there were obstacles to be overcome:

> For example, an arts and crafts visit. I go to the home and the provider is not having a good day. I purchased all these arts and crafts materials but I can't get past the problems the provider is having with, for example, the county regarding payment. I have to leave in one hour so I can complete my required visits. I never get to do the arts and crafts. I just leave the stuff.

TA providers' background and education: Next participants were asked about their backgrounds and preparation for the work of giving technical assistance to child care providers. These included information about formal training as well as current or on-the-job training. As indicated above, most TA providers previously had been child care providers. Several indicated that the work of giving technical assistance had enlightened them and several were pursuing associate's degrees or enrolling in a collegiate early childhood education program. Others talked about the importance of on-the-job training. They had learned about child care through training, observation and experience as a TA provider.

> I think the best experience is familiarity with what it takes to be a home care provider. . . I mean it's one thing to go to school and take courses, but there's nothing like hands-on experience dealing with children.

> I was a provider myself for quite a few years and I really enjoy that aspect of things. Since I know that end, I'm able to talk better on this end. I also enjoy the trainings. I took CDA (Child Development Associate Certificate) training myself because I wanted, I was encouraging the providers to do it. And to me, I couldn't encourage them to do it and not at least do it myself. . . . Everything I learned I was able to take to the providers.

When asked to identify specific training that was helpful in their work, participants talked about several kinds of training. Some thought the youth literacy training was best as it exposed many of the child care providers to the importance of reading and encouraging "beginning scribbles . . . as a way of learning to spell their name." Some found that the training with Thelma Harms on the use of the *FDCRS* was helpful because of her obvious love for children and her belief that the TA providers could make the homes "the best they possibly can" be so all children would benefit. "Ages and Stages" training was seen as very useful. Training on the use of forms was not helpful, nor was training on completing the capacity and vacancy reports.

Finally, when asked to discuss skill sets that ought to be used in hiring new TA providers, participants indicated that people should be flexible, have good communication skills, be able to relate to many different kinds of people, have some basic child development knowledge, and some social work or counseling skills. There was consensus that TA staff could and did "learn as you go." One participant summed up the thoughts of many, "You can learn all that stuff on your own if you have any brains about yourself. But that front line communication is most important."

The helpfulness of technical assistance: Participants were asked to identify the ways in which technical assistance was helpful to child care providers, as well as to indicate the barriers to giving assistance and to child care providers using the assistance. TA providers considered their work on establishing professionalism to be extremely helpful to home-based providers. This included their efforts to stress the differences between providing developmentally appropriate child care and babysitting. They believed that many child care providers did not understand the importance of getting up, being dressed, and being prepared for the arrival of children until the TA providers started visiting and working with them. Encouraging child care providers to pursue an education also was helpful, as was developing a relationship in an effort to build their self-esteem.

> I've gone into homes when I first started with them, they were simply babysitting. There was no structure. We had a toy box and that was it. To be in that home, and telling them, 'okay, let's set up different areas. Let's give yourself different activities.' Just sort of sharing with them, they can do a lot with just what they have, I've seen them begin to grow. So, I think if the provider takes advantage of it . . . [there can be] a lot of changes. Where we've come from that toy box and taken those toys out and setting things up with music. And setting up a library so things are more accessible to that child. Having an art center where they didn't think about that kind of stuff until you introduced that stuff. So I think those TA visits are very important so they'll know how to be professional. . . . You're in business now. Sort of putting that in their mind. You're a business, so let's set up for business.

When asked what was not helpful to child care providers, or what could be more helpful, TA providers talked about the rules that governed their use of time – that they had to be at a home for an hour. This was a significant constraint. Some providers did not need their attention for an hour, while others needed much more than an hour for support and technical assistance. Participants in three groups discussed barriers related to the use of materials and the lending library. Some TA providers were unable to use materials and supplies from their organizations. Others indicated that the library materials were not helpful, "providers don't want them because they have to sign a form that says they are liable for damages." In addition, some participants talked about the multiple aspects of the work as a barrier to learning and change for the child care providers:

> Do you really know what a TA has to go through? Because it's just like, it's such a push for visit, visit, visit. But then you push for quality . . . . But if I need to give people more quality . . . and you want more visits . . . , what am I going to do? And I think that it makes it hard for everyone because you stretch yourself so thin with paperwork and it will make you . . . want to quit.

Last, TA providers identified their use of the Family Day Care Rating Scale (*FDCRS*) as a barrier to their work with child care providers. They described it as a barrier in two ways. First, they believe the tool discriminates against the home-based providers and environments the TA providers observe every day. Second, they believe the standards set in the tool are extremely high, far higher than state standards for certification. In each group there was extensive discussion about the *FDCRS*, which is presented below.

Using the *FDCRS* for provider assessment: Discussion about use of the *FDCRS* for assessment of child care providers was pursued. Participants were asked to identify its strengths and weaknesses and to describe in general the ways they use the tool. Finally, we sought their help in identifying effective uses of the tool. TA providers had much to say about the *FDCRS*.

They thought it provided a "place to start" in working with child care providers. It helped them to consider aspects of care they would not otherwise think about, such as art display, dramatic play, and strategies for encouraging language.

> When I go through the assessment with them, some of them, maybe before that assessment, didn't realize that these were things that would be important for them to have in their daycare. Like as far as the child related display and each child has like at least two of their displays up on the wall and how it helps them.
>
> I like the furniture thing. Because after they have that first assessment, I have no bother sitting with them and showing them how, use it as a checklist. "Go through your house and see. Like for broken furniture. If you have a broken chair, a chair without a back, unless it's made like that, you know, you want to make sure you have things safe."

While some TA providers articulated these strengths, most discussed the significant challenges they encountered when using the tool. They reported that the tool was unrealistic and biased. It treated homes as if they should look and feel like centers. It ignored the idiosyncratic nature of home-based activities in favor of planned and scheduled endeavors. In addition, it failed to recognize how far most providers had already progressed, because they had started at "less than 1" (on a scale of 1 to 7). Also, providers who were scored at 3 are not given credit for their work to improve quality, as only those whose *FDCRS* scores are rated at 5 or above are rewarded with an incentive payment.

> You have that duality between the house as a house and the center. The best thing about their center is that it is a home. So that nourishing and loving and home environment vs. that cold hard building called a daycare center that has the space, mind you for the block section, for the reading section. But if you have a woman who has a home and she's doing it in her living room, dining room – of course you have the living room furniture, you have the huge dining room table, a china cabinet . . . she may not have a block corner. Her blocks are put up. She brings them out when she needs to do blocks.
>
> When I go in that house and do a *FDCRS* that day, and I don't see it that day, I can't rate her for that. To me, that's sort of unfair. You know because I know that home might do that but I have to rate what I see at that given time.
>
> It may be a day where that kid, something may have happened at that child's home before they got to day care and they may be wired. And they may not want to take a nap. And if it's telling me to look for A, B, C, D, F, and I don't see it, then that can affect her score and it may not be something, it may have nothing to do with her. But because I can only judge what I see when I'm there, that's what I'm going to judge her on . . . . You know something may have happened and it may be a down day. But if she's having a down day and that's what I see, that's what I'm going to think she's like every day.

Discussants in every group talked about use of the *FDCRS* as a threat to their relationships with child care providers. For some, the problem was discussed in terms of judging the child care provider, while for others the threat was about grading her:

> Well, it's like, in one hand, it's an uncomfortable thing because we know we're grading them and yet we're supposed to bring this approach that, "You're not being graded *per se*." And then we, in the back of our minds, we know that, oh yes, the hell they are. Because if they don't score 5 or better, they will not qualify for that increase. So, you're trying to be professional and non-biased and yet you know in the back of your mind that . . . this lady's just never going to get up to the 5 in this one area. Or overall, because they ratio it out but nevertheless, you know . . . by the time you walk into this house, especially by the second Thelma Harms (*FDCRS*) which is to be done six months after the first. You know if you've been out there at least five or six times, and the changes haven't been there, then you know how she's going to score. She's not going to score much higher than she did the first time around.

> I have a hard time doing it because I don't know if I'm qualified to sit and judge whether or not, do you have enough books and materials? She may feel she do, who am I to say? And then I try to go according to what's been written. I try not to go fluctuate from that. But I've gotten to know her and how can I be a judge in just that one time?

TA providers described very individual ways of using the *FDCRS*. Some did assessments and developed a plan for working with the child care provider at a later time to deal with problems. Others tried to work on care-related issues whenever they observed them.

> After I score it and write up a plan of action then I go back with them. And I'll say, these things are low and they fell here and we're going to start here. But if there is something that I saw immediately that I can remember off the top of my head, like this one instance where the lady had the one towel and every kid had their own spot but every kid used the same towel to dry their hands. But see I couldn't say anything at that moment . . . . But when I went back there the next time I said, here, I ended up showing her. This is how you wash hands. This is what you do and I went through the whole hand-washing thing with her.

> I don't show them what they scored, I do show them the book. I share it with them.

> I'll go through the tool and I don't care. When I see them doing wrong, if I'm there for a TA . . . [visit] and I see them doing something, I'll correct them. But when I'm doing the *FDCRS*, I do not, there is no corrections that will make it because I want to see you doing whatever you're doing. And most of them are comfortable enough with me that they're going to do what they do every day.

Several participants raised questions about the idea of "teaching to the test" or providing technical assistance in the specific areas noted in the *FDCRS*, as they used the *FDCRS* for assessment and then worked with child care providers to alter their behaviors. For the most part, there was clear understanding that the *FDCRS* is not a test but a set of standards; yet some discussed it as a test of provider efforts.

> So in some instances, you have to teach the test. And sometimes, teaching the test makes them realize . . . in my workshops, I gave them each a copy of the tool. . . . I went over like 5 different . . . health and safety issues, cultural awareness, I think I did sand and water play and another. So I had 5 different items, right? And we went through each and every step. And when I go through each and every step with them and I said to them, "You sit back and I'm going to explain each one. And you tell me, I mean because I'm not in your home. You tell me would that be a yes or a no for you? So score yourself." And then most of them will say, "Oh no, not that, I didn't even know that, I hadn't even thought about that."
>
> Since we don't have time to go over the 30 plus items, not 30 plus items compounded by each little individual section, which is about 300 when we get finished. We have to give them that tool in order to say, like, this is what we're looking for; this is what we want.

When asked how they might use the *FDCRS* if they had choices about it, some participants indicated that they would use the tool as an outline, or would use it to determine how many visits a provider might need.

> I think I would first of all, use it as an outline. . ., a template. Just an example, a model. This is a model version of the art corner. You know and then let, again, the provider take what she's going to take and implement that in her own center. And not use that same one standard for thousands of people who come from all different backgrounds.
>
> Maybe the tool should be used to determine how many visits that provider needs to have. Maybe we should be more developmentally appropriate and use the tool to determine, okay, this provider needs more time to spend. They should have 14 visits that year. This provider really needs some more time, they should have 20 visits that year.

TA providers describe quality in home-based care: Last, participants were asked to define quality child care in a home-based setting. For these participants, quality of care was multidimensional. It included professional behavior and business acumen, a safe, caring and loving environment, and developmentally appropriate care. In a quality setting, providers work closely with the children, relate to them, and encourage their learning. There is a curriculum to prepare the child for kindergarten. Providers are warm, welcoming, and flexible. They have good communication with parents.

> The way that person interacts with the children. I mean *interacts*, a real relationship where that person, just because you don't have all the equipment in your home, doesn't mean you can't teach quality. . . . I have one and she really doesn't have much but she is actually sitting down and she is doing activities with her children. And she talks to them. And when it's time for the servings, how she lines them up so that they can wash their hands, dry their hands, get their own plates, or whatever they need. She is teaching them not only to be independent, but she's giving them quality care.
>
> I also like to see good relationships between the children and their provider. If that child is constantly hugging on that provider, well they're just so comfortable it's almost like

> being at home for them. I think that's real important. I would want to leave my child in that kind of environment where I know that person cares enough and will take the time individually to deal with that child. And that child feels love, that's important to me.
>
> First of all a clean home, a home that when I enter it, I see a lot of different activities for the children to engage in. There are age appropriate activities, displays to help the children with their self esteem. A home that's teaching children good habits, so in case they're not getting it where they live, they're getting it from the daycare. A home that is basically just focused on things to help children's learning. . . . when I go into a home I don't see the TV just being on with soap operas. But if the TV is on, it has something that's child related or something appropriate for children. A home that is safe from hazards.
>
> If I was a parent looking for a home, I would look for a more structured home. You gotta have that loving care and nurturing about you and . . . . I'll also ask her about do she have a curriculum or what kinds of things does she do with the kids. You know different things like that. And most important issue, mobile. She has to be mobile because my child is very hyperactive. She has to be mobile. And the home has to have, you know, a variety of things in the home.

Summary of Responses

TA providers were asked to respond to five questions: to describe their work and educational preparation for doing the work, discuss the value of technical assistance for home-based providers, explore their beliefs and attitudes about the *FDCRS*, and offer their definitions of quality child care. Participants reported that the work is challenging and complex. There is insufficient time to do all that is required and little flexibility in structuring the number of visits to be completed and the time to be spent with individual providers. TA providers engage child care providers in relationships and they offer social and emotional support. They are often unable to complete the task-related requirements of the work because child care providers require the social support. Challenges to performance include changing program rules and requirements, uncooperative County child care workers, lack of materials and supplies, and the individual needs of the child care providers.

TA providers' backgrounds were varied. Most had been home child care providers and some had worked in centers. Fewer than half had college degrees. However, the work had encouraged some to begin training in early childhood education or to seek certification by obtaining a Child Development Associate (CDA). They were especially appreciative of some Starting Point sponsored training, such as the early literacy training. Other training, such as that designed to teach the completion of forms, was viewed as not helpful.

They reported that technical assistance was helpful to child care providers in a number of ways. A focus on professional development and business operations was essential in assuring that providers were aware that their child care home was a business. TA providers also indicated that their relationships with child care providers were helpful and meaningful. Challenges to offering help were many and included use of the *FDCRS*.

The *FDCRS* was seen as a barrier in a number of ways. It fails to account for perceived differences between home-based child care and center-based care. It also sets standards for quality that are far more demanding than those of the State. More specifically, TA providers found the *FDCRS* to be unrealistic and upsetting to providers. They questioned their appropriateness to judge and grade providers. They also discussed the difficulty of assessing the provider at one point in time, when they had gotten to know her and her patterns of child caregiving over time. Some were able to articulate strengths of the tool: it examines basic aspects of care and reminds TA providers of components of care they might otherwise neglect. It can be helpful as a checklist or outline for child care providers and it offers guidelines in many areas of caregiving.

Many ideas about quality of care emerged from the discussion. Professionalism was one dimension, including operating one's child care program as a business, communicating with parents, marketing services, and acting in a professional manner. A second dimension focused on structure and curriculum. The child care provider should have planned activities, should prepare the child or children for kindergarten, but be flexible. The providers should also be warm, loving, and provide a safe and stable atmosphere for the child.

Underlying/Other Issues

In conducting focus group research, group facilitators are asked to be aware of both content of discussion and material that is not part of the discussion. Participants described many aspects of TA visits. They talked about strategies they used, materials they would make available to child care providers, approaches to using the *FDCRS*, and various challenges they had to overcome. They did not discuss proscribed ways of delivering the technical assistance. No one identified specific guidelines for working with child care providers to cover a topic. For example, in some teaching and learning models, a series of steps would be carefully followed:

- The TA provider conducts an assessment.
- She discusses it with the child care provider.
- They develop a plan together to work on the needed learning component.
- The TA provider returns at a specified time to work on the plan.
- She charts the provider's progress, and notes when she had succeeded, then moves to the next area of assessment.

In some focus groups, there were hints at aspects of these steps, but TA providers do not feel constrained to complete them. In fact, they discussed many reasons for being unable to complete them. TA providers may have had exposure to a specific curriculum (i.e., the Creative Curriculum), as mentioned by providers in one group. However, there is little evidence that they understood the value of using such a curriculum in their visits.

Much of the discussion of using the *FDCRS* tool was focused on its drawbacks. TA providers seem not to have clear guidelines about using it as a tool to improve quality. While some talked about it as a framework or outline, they did not reach consensus about ways to best use it. Should the child care provider have a copy of the book or the scoring sheet? Could the child care provider rate herself? Could the tool be used to educate providers about standards?

TA providers raised questions in the discussion that we believe remain unanswered. For example, participants in one group cited the divergent objectives of their work and asked for clarification: do you want us to make more visits or focus on quality? This seemed to indicate that it was not possible to do both. Yet, the conditions of payment to Regional organizations require performance based on the number of visits conducted. Comments from others did not address this question directly, but in subtle ways participants asked for this guidance.

TA providers discussed many different types of preparation for the technical assistance work. Combinations of formal education and real-life experiences comprised the backgrounds for many. Only in one group did providers give serious consideration to more advanced or specific types of preparation. Technical assistance providers could benefit from having a CDA credential or an associate's degree (or even bachelor's degree) in early childhood education.

Last, it seemed clear that Regional offices could not assure the availability of resources for staff or child care providers. Participants in each group indicated that they would gather their own materials or purchase new ones. Equipment, such as computers or laminating machines, was often not working or not available to them. While these conditions called upon the TA providers to become creative, it was also very frustrating and created additional challenges to completing work assignments.

Quality of Care in a Sample of Family Child Care Homes:

The following sections describe the final portion of the evaluation project. In these sections, findings are presented from an examination of the quality of child care services prior to and during intervention visits aimed at enhancing the quality of family child care. A random sample of providers was selected from the Starting Point administrative dataset. The primary intent of this portion of the study was to determine if technical assistance delivered to family child care providers would improve the quality of care over time. In addition to this broad question, there were several sub-questions that were explored:

- What was the baseline quality, i.e., the quality prior to receipt of the technical assistance program, Care for Kids, of the recently certified Type B family child care homes in Cuyahoga County?
- How many of the sample providers participated in Care for Kids, the quality enhancement program?
- Has the global quality of care changed 12-months later as a result of the technical assistance program?

Analyses of Quality Measures

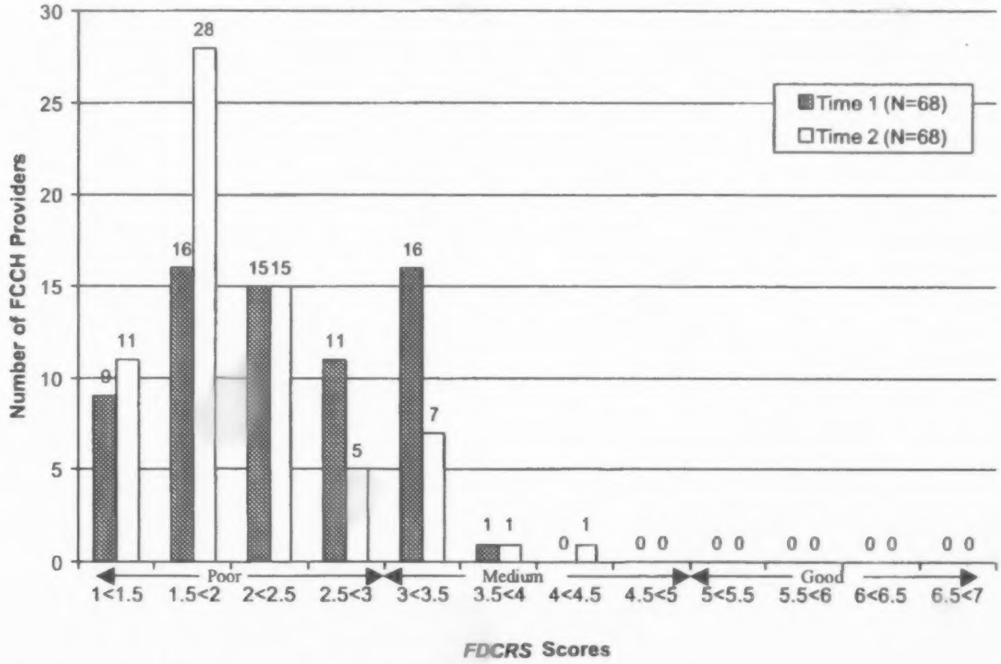
Data from the *FDCRS* and the *CIS* were examined in order to provide a picture of the overall quality of child care in a group of recently certified Type B family child care homes in

Cuyahoga County. In the following section, data collected pre- and post- technical assistance are reported.

Family Day Care Rating Scale (FDCRS): *FDCRS* data provided a picture of the quality of child care provision at Time 1 and 12-months later at Time 2. Based on results from the *FDCRS*, the overall quality of care at Time 1 was in the poor range, with an average rating across all six subscales of 2.34 (*SD* = .68). The *FDCRS* scores for the family child care homes ranged from 1.31 – 4.54, suggesting that providers at the upper levels of the range were providing fair or medium care (i.e., mean score over 3) and were approaching good levels of care (i.e., mean score over 5).

The *FDCRS* mean score at Time 2 was 2.05 (*SD* = .69) indicating the overall quality of care provided by the sample group of providers was still in the poor range. *FDCRS* scores at Time 2 ranged from 1.0 – 4.48. A t-test comparing the Time 1 and Time 2 FDCRS mean scores revealed that that FDCRS mean score at Time 2 was significantly lower than the *FDCRS* mean score at Time 1 (*t* (67) = 3.99, *p* = .000). Using an interval estimation strategy, the 95% confidence interval for the *FDCRS* mean score for Time 2 was between 1.881 and 2.215 (while the *FDCRS* mean score for Time 1 was between 2.178 and 2.508).

Appendix 5.4 lists individual item and subscales scores from the *FDCRS* for Time 1 and Time 2 observations while Figure 5.6 shows the distribution of *FDCRS* scores for the 68 family child care providers in the sample at Time 1 and Time 2.



Source: Observer data. Analysis of data by Center on Urban Poverty and Social Change.

Figure 5.6 Results of *FDCRS* Quality Scores at Time 1 and Time 2

Caregiver Interaction Scale (CIS): Parents often report that a primary criterion in finding "good child care" is that the caregiver be warm and caring (Kontos et al., 1995). Caregivers who are neither harsh nor detached but are instead sensitive to the needs of the children meet this criterion. It is these interaction qualities between providers and children that the *CIS* assesses. Data collectors rated aspects of provider sensitivity, harshness, detachment, and permissiveness along a continuum from 1 to 4, where 1 corresponds to "not at all," 2 corresponds to "somewhat," 3 corresponds to "quite a bit," and 4 corresponds to "very much".[4]

At Time 1, results from the *CIS* revealed that providers as a group were "somewhat" sensitive in their interactions with children ($M = 2.83$, $SD = .47$). Subscale scores suggested that providers were somewhat low in sensitivity; fairly low in harshness, i.e., not overly harsh; moderately low in detachment; and moderately low in permissiveness.

The *CIS* mean score at Time 2, 2.63 ($SD = .54$), was significantly lower than the CIS mean score at Time 1, 2.83 (t (67) = 3.197, $p = .002$). Results suggest, however, that the sample of providers was still "somewhat" sensitive in their interactions with children. The 95% confidence interval for the *CIS* scores fell between 2.715 and 2.941 for Time 1 and between 2.499 and 2.760 at Time 2.

As can be seen in Table 5.9, provider levels of harshness, detachment, and permissiveness were similar to those observed at Time 1. More specifically, providers rated somewhat low in sensitivity, fairly low in harshness, moderately low in detachment, and moderately low in permissiveness.

Table 5.9 Quality of Provider Interactions with Children Based on the *Caregiver Interaction Scale*

CIS Item	Time 1 Mean (*SD*) (*N* = 68)	Time 2 Mean (*SD*) (*N* = 68)
CIS Total Score (Range 1.0 – 4.0)	2.83 (.47)	2.63 (.54)**
Sensitivity Subscale	2.30 (.62)	2.01 (.66)**
Harshness Subscale	1.71 (.53)	1.77 (.68)
Detachment Subscale	2.03 (.75)	2.04 (.71)
Permissiveness Subscale	1.97 (.56)	2.01 (.73)

Source: Observer data. Analysis of data by Center on Urban Poverty and Social Change.
**Significant at the p =.01 level.

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[4] Higher scores on the sensitivity subscale and low scores on the harshness, detachment, and permissiveness subscales indicate better quality interactions. For the CIS total score, scores on the latter three subscales are reversed, so that higher total scores represent better interactions.

Additional Analyses of Quality Outcomes

Since both the *FDCRS* and *CIS* scores revealed that as a group the quality of care within the sample decreased over the 12-month period, it was clear that closer inspection of the data was necessary. Key concerns included: Did every provider in the sample demonstrate a decrease in her *FDCRS* mean score? What role did the technical assistance visits play in the results? Did the program of home-based technical assistance affect a change in quality of care?

Analyses to respond to these questions began by dividing providers into groups based on whether their *FDCRS* scores increased, decreased or stayed the same from Time 1 to Time 2 and then determining whether structural characteristics that might influence quality, e.g., group size, caregiver education, differed among the groups. Finally, the relation between technical assistance visits and the providers' *FDCRS* scores was analyzed.

Groups of providers: Three groups of providers were identified in the sample of 68 providers: 9 (13%) providers whose scores were unchanged from Time 1 to Time 2, 17 (25%) providers whose scores increased from Time 1 to Time 2, and 42 (62%) providers whose scores decreased from Time 1 to Time 2. The small group sizes increase the possibility of error and overgeneralization. With that caveat, we asked, "What factors differentiate these groups besides the changes in mean scores on the *FDCRS* from Time 1 to Time 2?"

Structural characteristics and child care quality: Several structural characteristics were examined. The first structural characteristic investigated was the number of children in care or what is referred to as group size. Did the number of children in care affect quality scores for the sample of providers? This factor was looked at in four ways: (1) the maximum number of children the provider reported caring for at one time, (2) the number of children present during the Time 2 observation, (3) the percentage of children under 2 years of age, and (4) the change in the number of children present during the observations from Time 1 to Time 2.

Review of the maximum number of children providers care for during a shift proved unfruitful. Across all three groups of providers, the typical number of children a provider reported caring for when all of her children are present was six.

Data examining the number of children present during the second observation revealed more information related to quality scores. In this case, the providers whose scores at Time 2 remained the same or increased, cared for fewer children during the second observation. More specifically, providers whose scores decreased cared for four children on average during the second observation while the providers in the other two groups cared for three children on average during the second observation.

Data on the percentage of children under two years were examined because, in general, children under two require more attention from caregivers. Even if a provider were to care only for an infant's or toddler's basic needs (e.g., diaper changing, feeding), meeting basic needs takes time and reduces the time available for other children in care. Results suggest that the percentage of toddlers in care may negatively influence the overall quality of care provided in the sample of family child care homes. More specifically, providers in the groups whose scores remained the same or decreased cared for a greater percentage of children below two years of age. On average, 25% of their total number of children in care was under two years, whereas for the providers whose scores increased, only 15% of the total number of children was under two.

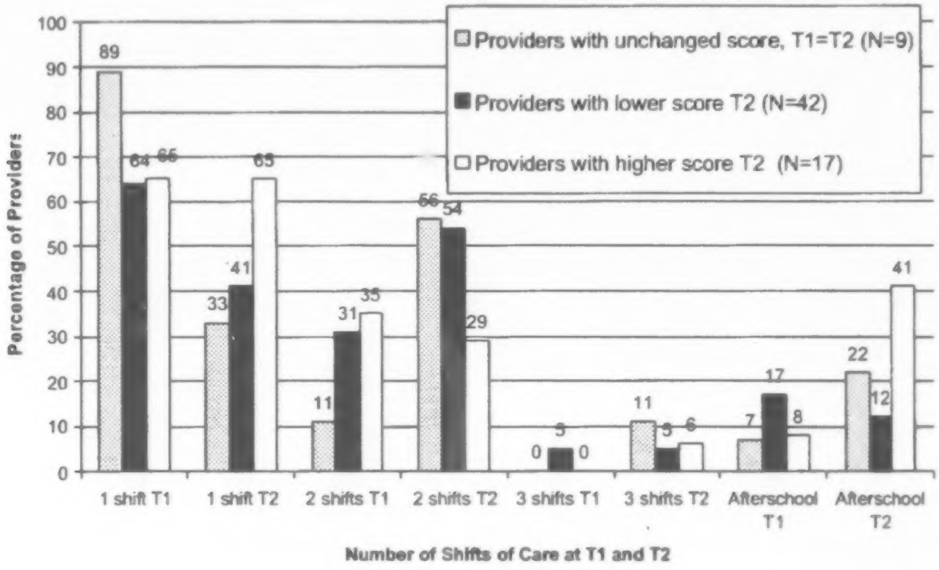
Finally, we asked if providers had more children in care during Time 2 than they had during Time 1. Is it possible that the overall decrease in a provider's *FDCRS* score is related to an increase in the number of children in care at Time 2 (versus Time 1)? Given that one of the goals of welfare reform was to help unemployed individuals secure sustainable employment and that many unemployed women were encouraged to become child care providers, it would be expected that a desire to increase their income would result in providers caring for greater numbers of children over time. In fact, this is true. Income information in Table 5.5 (p.19 of this chapter) reveals consistent increases in provider incomes over a two-year period of the ECI. Given that all of the providers in the sample receive vouchers for payment of child care services and that voucher income is capped, it can be assumed that increases in income are related directly to increases in the number of children in care.

Analyses revealed that the change in the number of children in care from Time 1 to Time 2 did not appear to influence the *FDCRS* score at Time 2 or the *FDCRS* change score from Time 1 to Time 2. For the group of providers whose scores increased from Time 1 to Time 2, 55% cared for a greater number of children at Time 2 than at Time 1; for the group whose scores decreased, 45% of the providers cared for more children at Time 2; finally, for the providers whose scores were unchanged, 33% cared for more children at Time 2 than at Time 1. The average number of children in care at Time 1 becomes the key to this issue. The providers whose scores improved had fewer children on average (3 children versus almost 4), than either of the other two groups at Time 1. As a group, the providers whose scores improved continued to have an average of three children at Time 2.

To summarize, while the change in the number of children from Time 1 to Time 2 does not appear to be influencing the Time 2 *FDCRS* scores or the *FDCRS* change scores from Time 1 to Time 2 for the sample providers, the number of children present at the Time 2 observation does appear to influence the *FDCRS* score at Time 2.

Another way for providers to increase their income is by increasing the number of shifts of care provided in a day. In addition, providers might offer after-school care to increase income. Therefore, it was assumed that some providers would increase the number of shifts of child care they made available from Time 1 to Time 2. Data suggest that providers whose scores stayed the same and providers whose *FDCRS* scores decreased from Time 1 to Time 2 report providing more shifts of care than the group of providers whose *FDCRS* scores increased. This preliminary finding suggests that the number of shifts of care offered by a provider may influence the overall quality of care provided. Figure 5.7 provides these data in more detail.

Other structural factors that influence quality outcomes were examined, including provider characteristics such as education level and participation in training activities related to improving child care practices. There were no differences among the three groups in years of education: the average education level was a high school degree. Use of training beyond the technical assistance provided by Care for Kids also did not differ across the three provider groups since providers in both the increased and decreased quality groups reported participating in an average of one training session over the year; providers whose score did not change reported participating in fewer than one training, as not all providers participated in training and those who did participated in only one training. Examination of participation rates for Care for Kids, the quality enhancement program, revealed that 63 of 68 providers were engaged in the program with 6 of 9 providers whose scores remained the same participating, 40 of 42 providers whose scores decreased participating, and 17 of the 17 providers whose scores increased participating in the program. Overall, participation in Care for Kids and other training experiences as reported by providers in the sample does not appear to be related to *FDCRS* scores at Time 2.



Source: Observer data. Analysis of data by Center on Urban Poverty and Social Change.

Figure 5.7 Shifts of Care Offered by the Sample of Family Child Care Providers[5]

Finally, Galinsky, Howes, Kontos, & Shinn (1994) suggest that providers with less experience providing child care may be more receptive to change than providers with more experience. This factor was reviewed for the three provider groups in the sample. An analysis of responses to the question, "How long have you provided child care including time before you became certified?", revealed that all 14 providers who reported having offered child care prior to becoming certified Type B family child care homes were in the group of providers whose scores decreased from Time 1 to Time 2. All providers whose scores increased from Time 1 to Time 2 reported being a child care provider only as long as they had been certified under ECI.

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[5] For this evaluation, three shifts were identified and defined in the following way: Shift 1 - child arrives in the morning before noon; Shift 2 – child arrives between noon and six p.m.; Shift 3 – child arrives after 6 p.m. After school care is considered an addition to the three shifts of care. Cuyahoga County has no standard definitions of "shifts" for child care.

In summary, several structural quality factors may help to explain how some providers' scores in our sample decreased rather than increased (as hoped) from Time 1 to Time 2. The following trends were noted: the more children present during the Time 2 observation, the more likely a provider's *FDCRS* score decreased; the greater the percentage of children under two years of age for whom a provider cared, the more likely her score decreased; the more shifts of child care a provider offered each day, the more likely her *FDCRS* score decreased; and finally, the greater the amount of child care experience a provider reported having prior to becoming a certified family child care provider, the more likely her score decreased from Time 1 to Time 2.

Technical assistance visits and child care quality: Does technical assistance matter? If for the majority of sample providers, their *FDCRS* scores decreased from Time 1 to Time 2, can it be said that the home-based technical assistance program, Care for Kids, did not work? The following section reports on how the technical assistance visits made a difference; that is, the more quality enhancement visits (i.e., all technical assistance visits except pre-certification, Child and Adult Care Food Program, and business practices visits), the higher a provider's *FDCRS* score at Time 2. To begin, a review of the technical assistance visit data will be reported for the sample of providers. From there, information regarding the relation between visits and *FDCRS* scores will be presented. Finally, results from Repeated Measures Analyses of Variance will complete the section.

We were interested in the number and types of technical assistance visits received by providers in the sample. In particular, we wanted to know how many quality enhancement visits sample providers received. Table 5.10 lists the average number of quality technical assistance visits by category of visit. As can be seen, 64 of 68 sample providers each received an average of 13 quality visits since becoming certified child care providers; four sample providers received no quality visits.

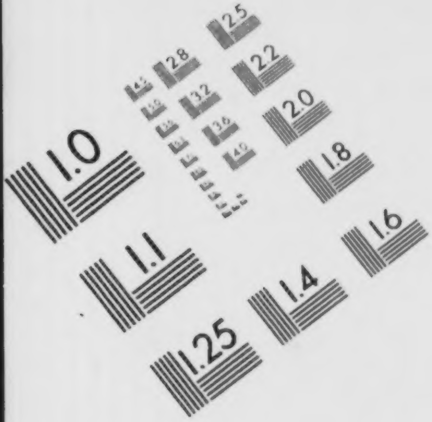
Table 5.10 Quality Visit[a] Data by Category for Sample Providers Who Received Quality Visits

Quality Visit Type or Categories	N	Mean (SD)	Range
Mean Quality Visits Between T1 and T2	60	6.76 (3.1)	1 - 14
All Quality Visits Since Certification	64	13.19 (5.0)	1 - 25
Assessment	59	2.81 (1.1)	1 - 5
Space & Furnishings for Care & Learning	38	1.74 (1.06)	1 - 10
Basic Care	59	3.14 (2.0)	1 - 21
Language and Reasoning	32	1.75 (1.1)	1 - 6
Learning Activities	58	3.62 (2.1)	1 - 11
Social Development	43	2.55 (2.2)	1 - 10
Adult Needs	36	1.61 (1.02)	1 - 5
Provisions for Exceptional Children	15	1.13 (.5)	1 - 3

[a] Quality visits include all visits except pre-certification, Child and Adult Care Food (meals and snacks), and Opportunities for Professional Growth visits.

Source: Starting Point data. Analysis of data by Center on Urban Poverty and Social Change.

The next step in the analysis process was to look at the relation between the number of quality visits ever received by providers in the sample and their *FDCRS* scores at Time 2. Figure 5.8 shows this correlation. Results of the correlation analyses indicated that the relation between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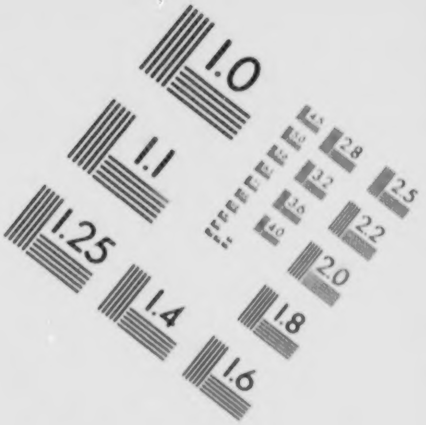
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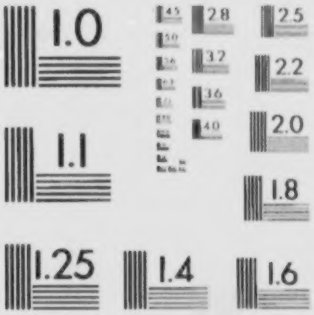
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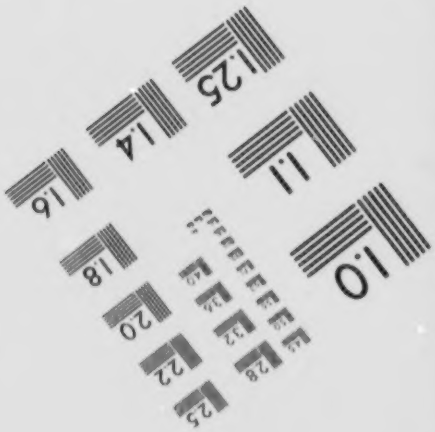
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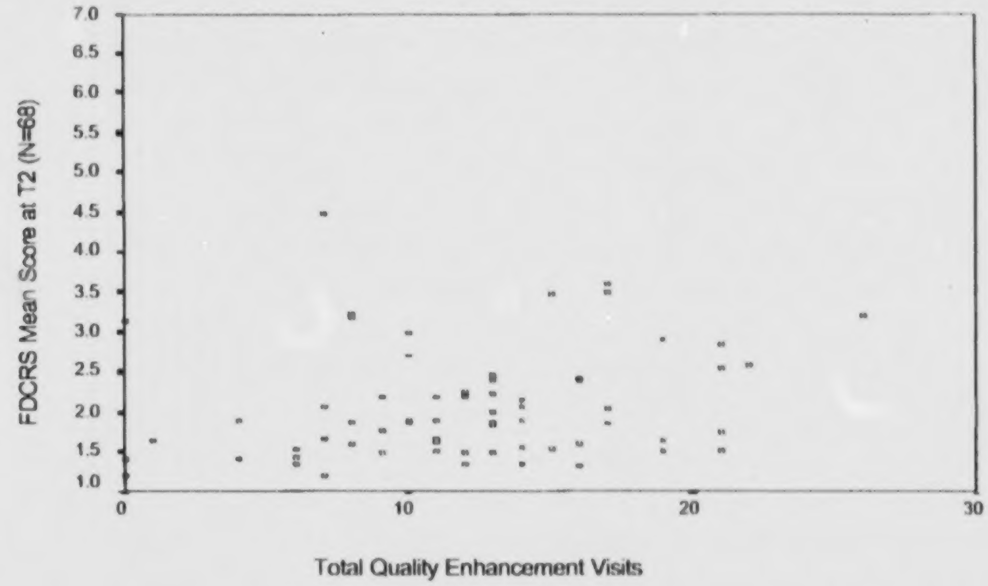
the number of visits received by providers and the providers' *FDCRS* scores at Time 2 was significant (r (66) = .282, p = .02). That is, as the number of quality visits increased, the *FDCRS* score increased.

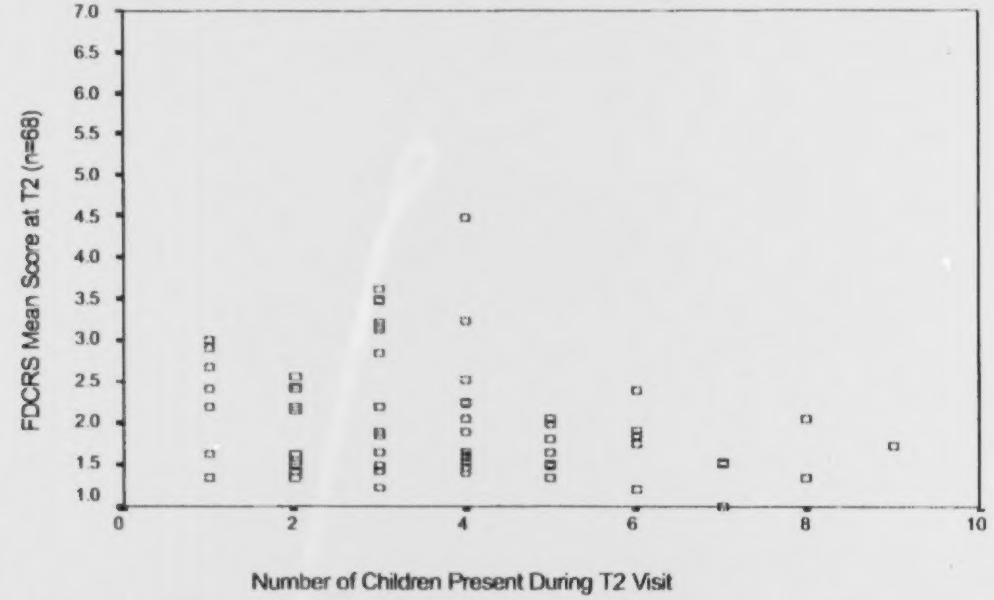


Source: Observer Data. Analysis of data by Center on Urban Poverty and Social Change.

Figure 5.8 Correlation Between the Total Number of Quality Enhancement Visits and the *FDCRS* Mean Score at Time 2

For the group of 68 providers, another correlation was completed looking at the relation between the number of children present at the time of the second observation and their *FDCRS* scores at Time 2. (See Figure 5.9.) This correlation also proved to be significant (r (66) = -.293, p = .015). In this case, as the number of children increased, the *FDCRS* mean score decreased.

Last, we wondered about the relation between the total number of quality visits received by providers and the maximum number of children a provider might care for at one time. Since providers with more children received lower scores and providers with more visits received higher scores, we asked if it were possible that providers who care for more children received fewer quality visits. Correlational analysis proved to be statistically significant (r (66) = -.282, p = .02) and suggested that as the number of children a provider cares for increases, the number of quality enhancement visits she receives decreases.



Source: Observer Data. Analysis of data by Center on Urban Poverty and Social Change.

Figure 5.9 Correlation Between the Number of Children Present at T2 and the *FDCRS* Mean Score at T2[6]

Repeated Measures Analysis of Variance: To better understand how several factors (such as the child care provider's experience, the number of children present, and the number of quality visits received) taken together influenced child care quality mean scores (i.e., the *FDCRS* scores and the *CIS* scores) at Time 1 and Time 2, Repeated Measures Analyses of Variance (ANOVA) were completed. Three provider factors including the amount of child care experience prior to ECI, the total number of quality TA visits received through Time 2, and the number of children present at the Time 2 observation were paired and examined in relation to the child care quality measures. All three provider factors were chosen because of their significance in correlational analyses. Results from these analyses reveal slightly different findings from the simple correlational analyses. Statistically significant results were found in response to two questions.

Question 1: Does the FDCRS score vary in relation to child care experience and total number of quality TA visits?

Providers with fewer years of experience and more than 12 TA quality visits maintained their Time 1 *FDCRS* scores at Time 2. This finding was produced when a one-way repeated-measures ANOVA was conducted where child care quality as measured by the *FDCRS* score at Time 1 and Time 2 was the within-subject factor, and child care experience prior to ECI and total number of quality TA visits prior to the Time 2 observation, each with two levels, the between-subject factors. The *FDCRS* mean scores at Time 1 and Time 2 are presented in Figure 5.10. The results for the standard univariate repeated-measures ANOVA revealed significant main effects for child care experience, F (1,64) = 6.85, p = .01, and for TA visits, F (1,64) = 4.24, p = .04. No interaction effect was observed.

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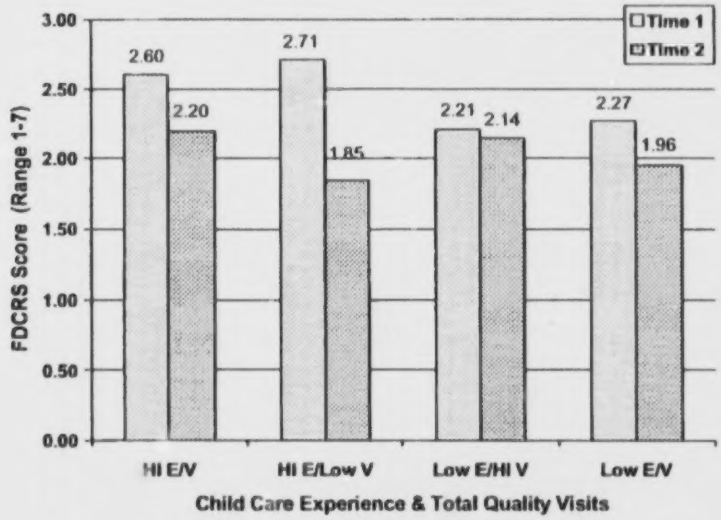
[6] While regulations state that providers may care for no more than six children at any one time, six providers were caring for more than six children during the Time 2 observation.

As can be seen in Figure 5.10, all provider groups demonstrated lower *FDCRS* scores at Time 2, although those providers with no prior child care experience and with high TA visits essentially maintained their *FDCRS* score from Time 1 to Time 2. Providers with high child care experience, i.e., experience prior to ECI, showed larger decreases in *FDCRS* scores from Time 1 to Time 2 than did the providers with no prior experience. Providers who received low TA visits demonstrated the lowest *FDCRS* scores at Time 2.



Source: Observer Data. Analysis of data by Center on Urban Poverty and Social Change.

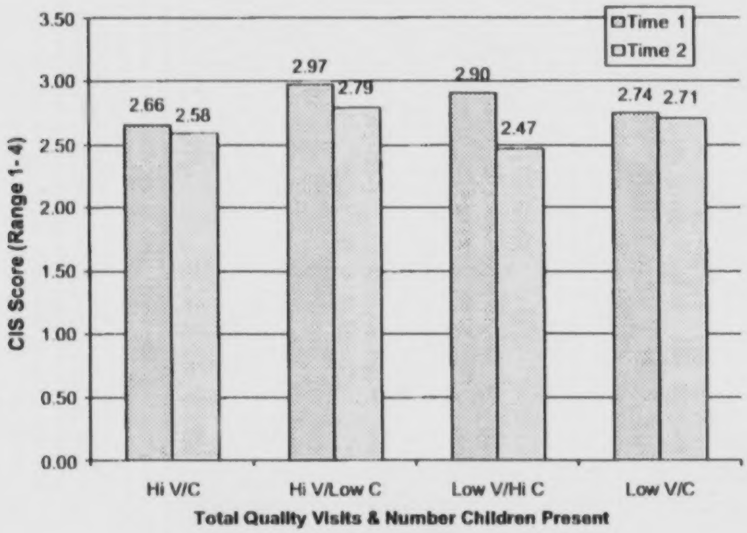
Note: Experience (Hi=provided child care pre-ECI; Low=provided child care only since certification under ECI); Quality Visits (Hi = >12 quality TA visits received; Low = <=12 quality TA visits received)

Figure 5.10 *FDCRS* Scores Time 1 and Time 2 by Providers' Level of Child Care Experience and Receipt of Quality TA Visits up to Date of Time 2 Observation

Question 2: Does the CIS score vary in relation to total number of quality TA visits and the number of children present at the Time 2 observation?

Providers with three or fewer children and more than 12 TA quality visits had higher CIS scores at the second observation. This finding emerged when a second repeated-measures ANOVA was conducted using the *CIS* scores at Time 1 and Time 2 as the within-subject factor and total quality TA visits and number of children present at the Time 2 observation, each with two levels, as between-subject factors. The *CIS* mean scores at Time 1 and Time 2 are presented in Figure 5.11. Results of the repeated-measures ANOVA revealed a significant interaction effect for number of quality TA visits and number of children, F (1,64) = 4.36, p =.04. There were no significant main effects. This analysis was completed also using the *FDCRS* scores at

Time 1 and Time 2 instead of the *CIS* scores. While the same trends were noted, the interaction between quality TA visits and number of children was not significant, *F* (1, 64) = 3.867, p = .054.



Source: Observer data. Analysis of data by Center on Urban Poverty and Social Change.

Note: Quality Visits (Hi= >12 TA visits received; Low= <=12 visits received); Number of Children Present (Hi=4 or more; Low=3 or fewer)

Figure 5.11 *CIS* Scores at Time 1 and Time 2 Observation by Receipt of Quality TA Visits up to Date of Time 2 Observation and Number of Children Present at Time 2 Observation

In Figure 5.11, the interaction effect can be observed. More specifically, providers with fewer children at Time 2 and more quality TA visits demonstrated the highest *CIS* score at Time 2; providers with low visits and high numbers of children had the lowest *CIS* score at Time 2.

In summary, results from these two repeated-measures ANOVAs suggest that for a sample of 68 family child care providers, quality of child care as measured by *FDCRS* scores varies in relation to both provider experience and number of quality TA visits. The *CIS* score is influenced by the interaction between the number of quality TA visits and the number of children present at the Time 2 observation.

Providers' Characterizations of Their Work

Providers in the sample were interviewed after both observations in order to learn more about their attitudes regarding child care as a profession, their professional beliefs, and their levels of stress related to providing child care. During the interview after the first observation, providers indicated satisfaction with their new employment, with 92% of the group indicating they expected to be providing child care in one year and 55% reporting that child care was their chosen occupation. Most providers during the first interview (84%) reported that providing child care was their primary means of support and reported their average gross incomes to be between $17,501 and $20,000 per year. Only a few providers (16%) stated that they held other paid employment in addition to providing child care. Finally, some providers (17%) reported attending professional development activities such as Child Development Associate (CDA) classes. Seventy-four percent of the sample group was enrolled in "Care for Kids" at Time 1.

Providers were also interviewed during the first round of observations using the *Family Resource Scale* (Leet & Dunst, 1988), a tool that allows understanding of resource allocation within a family. Providers responded to questions about the adequacy of resources (e.g., time, money, energy) for meeting the needs of the entire family as well as the needs of individual family members (including themselves). Responses suggested that as a group, providers experienced support as being "sometimes adequate" to "usually adequate". For example, 49% of providers reported that they "almost always" have adequate money to pay monthly bills. Additionally, more than half of the sample of providers (58%) considered themselves to have an "almost always adequate" job.

During the second round of interviews, some questions from the first round were repeated (e.g., Are you taking part in the USDA Child and Adult Care Food Program?) and new questions added (e.g., How often during the past three months have you felt burned out by your work as a child care provider?). The following section presents information learned about the providers in the sample from the second interview.

Employment in Family Child Care: Sample providers were asked first to discuss their employment as child care providers. Providers indicated that they became child care providers for two reasons: they wanted to stay home with their own children and they liked children. Sample providers reported that these two reasons are why they continue to provide child care. They described their role as providers as serving three purposes: to prepare children for school, to keep children safe, and to create a home-like environment for the children while their parents work.

The group of sample providers then described the advantages of family child care over other types of child care. Providers cited the flexibility in hours and the home-like atmosphere of family child care as the biggest advantages for parents. For themselves, providers reported the ability to stay home with their own children as the biggest advantage. Providers continue to express satisfaction with their employment with 88% indicating that they anticipate being child care providers in one year.

Opportunities for Professional Support: Providers were asked about their opportunities to meet with other child care providers for support and training. Almost one-half (44%) of the group said they meet regularly with other family child care providers and almost one-third (29%) indicated they meet with other providers but not regularly. Of those providers who reported not meeting with others, almost three-quarters (74%) of the group indicated they were unaware of opportunities to meet with other child care providers for support and training.

Dealing with Voucher Payments: All the sample providers receive vouchers for almost all of the children in their care. Providers were asked what happens when a parent becomes ineligible to receive vouchers. While many providers reported being unsure about what they would do, exactly half of the group indicated they would organize a payment arrangement with the parent.

Payment for services by vouchers remains the primary complaint of the sample of family child care providers. Almost three-quarters of the group (74%) reported experiencing problems related to vouchers and described being frustrated with the timeliness of payments.

Perceptions of Stress: Finally, providers were questioned about their experiences with stress (e.g., feeling burned-out, difficulty getting up in the morning, excessively tired) and the reasons for their stress. Many providers (78%) reported experiencing stress at least "sometime" during the three months prior to the second observation. In general, however, providers reported few conflicts between their caregiving responsibilities and family responsibilities.

Child Care Program Characteristics

Program characteristics such as enrollment and child care options were examined in order to better understand the nature of family child care in Cuyahoga County. Providers in the sample continue to serve a variety of children and provide a variety of care options. Data collected during the second visit to child care homes revealed the following characteristics about the child care homes in the sample.

Ages of the children in care range from two months to 13 years. Typically, six children are enrolled in each family child care home, but some providers reported caring for as few as two children and as many as eight children per shift[7]. Of the sample of 68 providers, 31 (45%) provide one shift of care, 32 (46%) provide two shifts of care, 4 (6%) provide three shifts of care, and one provides only after school care at Time 2. During our Time 2 observations, providers often were caring for fewer children than the number of children actually enrolled; that is, rather than the average six children for whom providers reported caring, providers were caring for three or four children. Almost a third (31%) of the family child care homes provide after-school care, almost one quarter (24%) provide care for children with special needs[8], about two-thirds (68%) of providers participate in the USDA Food Program, more than half (60%) of homes provide kin care and all (100%) of the providers care for at least one child for whom they receive child care vouchers. Finally, most of the children receiving care in the sample group of child care homes attend child care full-time, on average, 39 hours per week.

Summary of Observations of Family Child Care Providers

A sample of recently certified family child care providers living primarily in the city of Cleveland was followed in order to assess the effects of a home-based technical assistance program designed to improve quality. The provider sample closely matched the population of recently certified child care providers on demographic characteristics such as highest level of education, age, and gender. Results from analyses of observational and administrative data reveal the following trends:

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[7] For this evaluation, three shifts were identified and defined in the following way: Shift 1 - child arrives in the morning before noon; Shift 2 – child arrives between noon and six p.m.; Shift 3 – child arrives after 6 p.m. After school care is considered an addition to the three shifts of care. Cuyahoga County has no standard definitions of "shifts" for child care.

[8] The group, "children with special needs," includes any child a provider identified as having special medical needs or exhibiting documented developmental delays.

- The overall quality of child care provided in the sample of family child care homes remains poor. While the quality scores based on the *Family Day Care Rating Scale* for some providers have improved since the first observation, the overall quality scores for many providers have decreased from Time 1 to Time 2.
- Most providers in the sample participated in the home-based technical assistance program, Care for Kids, designed to improve the quality of child care.
- Providers in the sample who received quality technical assistance visits received an average of 13 visits since becoming certified.
- The more quality technical assistance visits a provider received, the higher her *Family Day Care Rating Scale* mean score at Time 2.
- The more children present at the Time 2 visit, the lower a provider's *Family Day Care Rating Scale* mean score at Time 2.
- Providers who cared for three or fewer children at the Time 2 observation and who received more than 12 total quality enhancement visits retained their quality scores from Time 1 to Time 2.
- Most providers continue to express satisfaction with their employment as family child care providers.
- Many providers expressed frustration related to payment for vouchers.

Discussion and Implications

Starting Point and the Regional System were successful in recruiting and maintaining a large number of family child care homes, surpassing their initial certification goals. Almost 1,500 homes were certified and turnover was contained at just over 17% during a three year period. The System was less successful in assuring technical assistance visits as originally planned and in focusing those visits on promoting quality caregiving among providers. However, the number of quality enhancement visits has increased each year, as the Regional System has been able to focus on quality rather than continuing to certify new homes.

TA providers reported that delivering assistance focused on increasing quality is difficult. Many indicated that the relational and supportive elements of their visits seemed most helpful to child care providers. Nevertheless, they described many creative ways of approaching providers as they attempted to find "teachable moments." TA providers reported their frustrations with demands for completing a specific number of visits and for using the *FDCRS* to assess provider needs. They expressed feeling caught between County workers and child care providers, a position in which they are uncomfortable.

TA providers are clearly resourceful and comfortable with child care providers. Yet, they also are able to discuss their concerns with providers who are unprepared to greet children, who have difficulty relating to parents, and offer little developmentally appropriate care. There is no evidence, however, that TA providers used a formal curriculum or teaching interventions to approach child care providers.

Use of the *FDCRS* as an assessment tool has been difficult for many TA providers. They reported that their ability to rate child care providers objectively on what they observe in the moment is hampered by their knowledge and views of the child care provider over time. In addition, there seem to be no practice standards for using the tool. Some TA providers give a copy of the FDCRS to the child care provider; others share only the score sheet; some share only the plan for changing the child care provider's behaviors.

Last, TA providers had many ideas about the concept of quality of home-based care. They recognized the importance of physical space, organization, cleanliness, and provider preparation. They expected providers to use a defined curriculum and developmentally appropriate activities. They wanted to see materials and equipment that were accessible to the children. They also expected to see consistent and ongoing interaction between children and child care providers.

Examination of caregiving quality in a random sample of FCCH providers indicated that global quality is similar to that found in other studies.of family child care home providers. The evidence that quality diminished over time for the sample is disturbing. In this small sample, however, providers with more than 12 quality TA visits and three or fewer children retained their Time 1 quality scores at Time 2. If quality TA visits continue to increase, quality improvement may accrue. Yet many providers seek and accept more than three children in order to earn sufficient incomes to support their families. Duration of experience as a child care provider also appears to be significant in retaining or improving quality. Newer providers, those who might be more open to learning, had higher quality ratings. Each of these factors deserves careful attention as the FCCH component moves forward.

Achieving Capacity and Full Scale:

For the FCCH component, reaching capacity was a primary objective. This component was faced with responding to demands for child care created by the state's TANF program (Ohio Works First). Capacity building efforts required attention from members of the Regional System well into the second year of the component's operation, delaying its ability to examine and focus on enhancing the quality of child care. The consequence of achieving the capacity goal was that TA providers were unable to accomplish the second goal, enhancing quality through home-based technical assistance. They could not complete the expected number of technical assistance visits to all of the providers in the Regional System and have been unable to do so in any year, although the number of quality enhancement visits continues to increase.

Targeting and Outreach:

It is not possible to consider fully the matter of "going to scale" without exploring the strategies for outreach used within this component. TA provider visits are the primary mechanisms for reaching out to child care providers. However, interviews with TA providers reveal that the curriculum model is at best unclear and for many, undefined. Forms and restrictive rules about visits hamper TA providers. Thus, visits to individual child care providers may be similar, whatever the provider's specific needs, or visits may consist solely of social support. When determining its strategies for outreach, the System did not consider adequately the ways in which a TA provider could target support to meet a child care provider's individual abilities. In practice, it appears that TA providers do make distinctions and tailor their efforts accordingly. When they do, however, they are often unable to complete the required number of visits for their organizations.

Important questions remain unanswered in the area of targeting. More than half of the TA providers lack academic preparation for their roles. Many of the child care providers have no more than a high school diploma or equivalency, and no formal preparation for child care. Many care for kin and the provision of child care might not otherwise constitute a career or a desired job for them. Some targeting of training or technical assistance within this large group might make a difference in quality of care – for example, with newer providers and those caring for few children.

Quality:

This chapter has reported that efforts to increase quality in the delivery of family child care services have not been successful in a sample of providers. Some providers have retained or increased their scores on the *FDCRS* and the *CIS*. It appears that these scores are related to a large number of technical assistance visits and caring for a small number of children. Short duration as a child care provider was also related to maintaining or increasing initial quality scores, perhaps because newer providers are more open to learning about appropriate caregiving behaviors. TA providers also discussed their views of quality. These concurred and extended the ratings provided by using the tools. In their view, caregiving quality can be learned, but they are not sure many of their providers want to learn.

Quality has other dimensions in this component. For example, it may be important to examine the service delivery strategies used here. It is not clear whether providing teaching/training activities or building and maintaining the TA and child care provider relationships is more significant for behavior change. Nor is it clear whether a well-implemented curricular model might make a difference in quality. Formal preparation for the work of providing technical assistance is once more an issue, as many of the TA providers lack the breadth or depth of learning that would prepare them to teach and train adults. During the past three years, the Regional System has been concerned with the number of visits completed by its regional members, as evidenced by contractual requirements. To build quality, the focus must shift from increasing the number of visits to encouraging behavior change. The County might pursue changes in financial incentives for child care providers to encourage a greater focus on behavior change. Other mechanisms must be found as well, such as financially supporting increased education for child care providers, or creating performance expectations for family child care providers and monitoring to assure the expectations are met.

Statements of clear expectations for both child care and TA providers constitute one other dimension of quality. Child care providers seem to want the support given by TA providers, but many resent visits as an intrusion. They can refuse to participate and state standards (as well as the County standards) require little of them beyond initial certification. Perhaps family child care providers in Cuyahoga County should understand that if they are to care for children, they must be responsible also for increasing the quality of the care they give. TA providers experience role conflict when they must mediate between County workers and child care providers. If TA providers are to act as mediators, they should be prepared for that aspect of the work. Last, availability of resources is an issue related to quality. TA providers should have sufficient material resources available in their organizations so they can work with child care providers. Child care providers should be able to earn enough income from caregiving that they do not feel compelled to take more children into care than they can manage.

Policy Context:

Re-authorization of TANF legislation is slated to occur during the coming Congressional session. Funding for child care is a primary concern among advocates. Current efforts underway in many states have used Child Care Development Funds to improve child care quality. However, few of these efforts have been evaluated and most have not shown great success (GAO, 2002). In Ohio, discussion has begun about increasing requirements for those who become family child care providers. These discussions have included consideration of statewide application of some Cuyahoga County standards, such as completion of 30 training hours prior to certification. Also under consideration is a requirement that six hours of in-service training be completed each year. Discussion has begun regarding more stringent licensure rather than only certification for family child care providers, tiered reimbursement rates that would emphasize increased quality, and higher educational standards. Policies such as these could change the look of family child care throughout the state. Cuyahoga County's efforts have resulted in intense capacity changes. Much can be done through policy and regulation to increase the level of quality among these providers.

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Appendix 5.1 The Provider Certification Process

Step Number	Steps in Certification Process
1.	An individual expresses interest in becoming a certified family child care provider by contacting Starting Point, a regional manager, or the County.
2.	The potential provider attends an orientation meeting to learn more about the program.
3.	The potential provider attends a 30-hour training class through her/his regional group. This class runs for five days, all day.
4.	The potential provider is assigned to work with a pre-certification worker from her region.
5.	The pre-certification worker schedules an appointment with the potential provider. There are generally three or four pre-certification visits focused on preparing the provider to operate a home-based business. Potential providers learn about space, safety, and health requirements for their home facility and for completing paperwork. The pre-certification worker determines the applicant's ability to meet health and safety requirements and to complete the paperwork. The potential provider is fingerprinted during one of these visits as well. An additional visit occurs if the potential provider chooses to participate in the Child and Adult Food Program. During this visit forms and requirements of the food program are reviewed.
6.	The applicant must obtain medical clearance from her physician or other medical care provider.
7.	The applicant must secure three references.
8.	The applicant must identify two emergency care providers who must complete all of the same training and other requirements as the primary provider.
9.	Regional staff forwards appropriate paperwork to Starting Point for review. Starting Point staff sends the completed packet to the County for review. The final review may or may not require a visit by a County staff member.
10.	A background check must be completed for the applicant, all adults in the household, and for substitute providers who may work in the home. (Note: Starting Point staff reports that the time required for this check has been reduced significantly since web-based software became available to all regional staff in March 2000.)
11.	Clearance checks for child abuse and neglect allegations are obtained from the County Department of Children and Family Services.
12.	The potential provider receives approval (or rejection) by Cuyahoga Work & Training and must go to one of the department's offices to sign her certification contract.

Appendix 5.2 Total Technical Support Visits – Years One Through Three

Type of Visit	Year One	Year Two	Year Three	Total Visits
Pre-certification, Meals/Snacks, Opportunities for Professional Growth	1,588	3,368	2,668	7,624
Assessment	76	713	883	1,672
Space and Furnishings for Care and Learning	16	106	37	159
Furnishings for routine care and learning	1	41	53	95
Furnishings for relaxation and comfort	1	18	31	50
Child-related display		28	129	157
Indoor space arrangement		43	83	126
Active physical play		64	87	151
Space to be alone – Infants & Toddlers		24	40	64
Space to be alone – 2 years & older		1	5	6
Basic Care	307	419	87	813
Arriving/leaving greetings		29	19	48
Nap/rest		10	35	45
Diapering/toileting		29	131	160
Personal grooming		12	81	93
Health		78	302	380
Safety		86	488	574
Language and Reasoning		27	55	82
Informal use of language – Infants & Toddlers		8	20	28
Informal use of language – 2 years & older	1	34	31	66
Helping children understand language – Infants & Toddlers		6	14	20
Helping children understand language – 2 years & older		69	124	193
Helping children use language		25	38	63
Helping children reason		23	69	92
Learning activities	187	191	87	465
Eye-hand coordination		81	126	207
Art		210	287	497
Music and movement	1	82	111	194
Sand and water play		27	135	162
Dramatic play		19	104	123
Blocks		32	40	72
Use of TV		28	106	134
Schedule of daily activities		67	231	298
Supervision of play indoors and outdoors		20	77	97
Social development	80	574	57	711
Tone		1	30	31
Discipline	1	63	89	153
Cultural awareness		73	78	151

(continues)

Type of Visit	Year One	Year Two	Year Three	Total Visits
Adult Needs	3	79	61	143
Relationships with parents	2	121	147	270
Balancing personal and caregiving responsibilities	1	62	146	209
Provisions for Exceptional Children		17	5	22
Adaptations for basic care (physically handicapped)		2	1	3
Adaptations for activities (physically handicapped)		4	1	5
Adaptations for other special needs		13	2	15
Communication (exceptional)		2	2	4
Language/reasoning (exceptional)		1	1	2
Learning and play activities (exceptional)		3	4	7
Caregiver preparation	4	136	81	221
Social development		2	1	3
Gross motor		1		1
Fine motor			1	1
Total Visits	2,269	7,172	7,521	16,962

Appendix 5.3 Example of One Item from the *Family Day Care Rating Scale**

	Inadequate 1	Minimal 3	Good 5	Excellent 7
Item 10. Diapering/toileting (from Basic Care Subscale)	>Problems with meeting toileting needs (ex. diapers not changed often enough).	>Diapering/toileting area meets basic sanitary conditions (ex. diapering area thoroughly cleaned.)	>Diapering done near source of hot water.	>Diapering/toileting used as time to talk with and relate warmly to children.
	>Basic sanitary conditions not met (e.g., diapers not disposed of properly, toilet area not clean, inconsistent hand-washing).	>Caregiver washes hands with soap after each diapering or when helping children with toileting.	>Equipment promotes self-help (ex. steps near sink, child-sized toilet seat).	>Diapering/toileting used to promote self-help in cleanliness and dressing skills (Ex. hand washing, using toilet paper, buttoning and snapping.)
	>Caregiver punishes or gets angry when toileting accidents occur.	>Diapers checked and changed often.	>Caregiver works with parents to toilet train toddlers.	
		>Children's hands washed after using toilet.	>Pleasant tone between adult and child during diapering/toileting.	
		>Caregiver handles toileting accidents calmly.		

*Ratings are based on the observed situation, not on future plans by the provider. A rating of *1* is given if any part of that description applies. A rating of *3* or *5* is given only if all parts of the description are met. Mid-point ratings of *2*, *4*, or *6* apply when all of the lower and half or more of the next higher description applies. For example, when all descriptions of *3* are met and half of the descriptions under *5* are met, a provider would receive a score of *4*.

Source: Harms and Clifford (1989), page 17.

Appendix 5.4 Quality Ratings of a Sample of Family Child Care Homes Based on the *Family Day Care Rating Scale*

Family Day Care Rating Scale (*FDCRS*) Item	Baseline Mean (SD) (n=68)	12-Month Mean (SD) (n=68)
***FDCRS* Total Score** (Range = 1. – 7.0)	2.34 (.68)	2.05 (.69)
Space and Furnishings for Care & Learning	2.28 (0.66)	1.95 (0.67)
Furnishings for routine care & learning	2.18 (1.21)	1.62 (0.88)
Furnishings for relaxation & comfort	3.44 (1.20)	3.22 (1.27)
Child-related display	2.15 (1.12)	1.79 (0.97)
Indoor space arrangement	2.24 (1.20)	1.72 (1.14)
Active physical play	2.52 (1.13)	2.16 (1.29)
Space to be alone - Under 2 years	1.70 (1.22)	1.44 (.673)
Space to be alone - 2 years & older	1.54 (1.07)	1.40 (.806)
Basic Care	1.88 (0.71)	1.41 (0.47)
Arriving/leaving greetings	3.27 (1.61)	2.68 (1.43)
Meals/snacks	1.91 (1.40)	1.33(1.00)
Nap/rest	2.03 (1.29)	1.44 (1.01)
Diaper/toileting	1.38 (0.80)	1.22 (0.60)
Personal grooming	1.19 (0.58)	1.28 (0.60)
Health	2.18 (1.23)	1.40 (0.69)
Safety	1.33 (0.79)	1.07 (.315)
Language & Reasoning	2.46 (0.92)	2.33 (1.09)
Informal use of language - Under 2 years	3.48 (1.57)	3.05 (1.83)
Informal use of language - 2 years & older	3.02 (1.42)	2.79 (1.45)
Helping children understand language – Under 2	1.56 (0.87)	1.69 (1.27)
Helping children understand language - 2+ years	2.30 (1.28)	2.20 (1.41)
Helping children use language	2.26 (1.00)	2.32 (1.14)
Helping children reason	2.24 (1.12)	2.01 (1.11)
Learning Activities	2.25 (0.83)	2.00 (0.79)
Eye-hand coordination	2.79 (1.32)	2.12 (0.76)
Art	2.48 (1.00)	2.37 (0.99)
Music & movement	2.24 (1.46)	2.07 (1.29)
Sand & water play	1.13 (0.46)	1.26 (0.59)
Dramatic play	2.35 (1.36)	2.34 (1.30)
Blocks	1.51 (1.02)	1.43 (0.82)
Use of TV	2.34 (1.65)	2.01 (1.64)
Schedule of daily activities	2.63 (1.37)	2.22 (1.51)
Supervision of play indoors & outdoors	2.74 (1.43)	2.21 (1.37)
Social Development	2.63 (1.00)	2.46 (1.26)
Tone	3.56 (1.67)	3.09 (1.97)
Discipline	2.91 (1.37)	2.76 (1.70)
Cultural awareness	1.44 (.84)	1.51 (0.89)
Adult Needs	3.33 (1.18)	2.97 (0.17)
Relationship with parents	3.83 (1.55)	2.44 (1.62)
Balancing personal & care giving responsibilities	3.13 (1.56)	2.79 (1.73)
Opportunities for professional growth	3.01 (1.72)	3.45 (1.60)

Chapter 6
Special Needs Child Care

Gerald Mahoney, Kathleen Quinn-Leering, Dionne Jones, and Julia Withers

Chapter Summary

This chapter reports on the Early Childhood Initiative's (ECI) efforts to improve child care for children with special needs, defined as those children who require additional support to be maintained in a child care setting. Community agencies, each with a different area of specialization, provided technical assistance (TA), training, and child care placement assistance to child care providers and families in the County. The evaluation was designed to examine: (a) child care providers' use of TA and training, (b) the relationship between TA and child care placement stability, (c) parents' access to special needs child care and related services, and (d) the effect of TA and training on special needs child care capacity.

Three sources of data serve as the basis for this evaluation. An Administrative Database maintained by Starting Point documented the special needs child care services that occurred in the County from January 1, 2000 through June 30, 2002. A Supervisor Survey captured the perspective of child care center administrators. A Parent Survey examined the views of parents of children for whom TA was provided. Important findings are highlighted below.

Administrative Database: The Special Needs Child Care Component of the ECI reached parents, children, and child care providers throughout the County. Services were provided on behalf of nearly 1,100 children with special needs. TA was provided to 760 providers and 246 parents. More than 250 families requested assistance in locating child care for their child with special needs. In addition, more than 900 child care providers attended at least one special needs child care training.

Supervisor Survey: Most supervisors responding to the survey indicated their center provided child care for a small number of children with special needs, although this number is rising in some centers. Supervisors would like to be more inclusive, but providing care for children with special needs can be challenging. In general, supervisors rated their providers as "somewhat capable" of caring for children with special needs and revealed that providers are more comfortable caring for children with less severe needs. The receipt of TA and training was associated with a greater willingness to care for children with special needs--especially receiving both TA and training related to physical, medical or developmental needs. A greater willingness to care for this population of children was also associated with having better paid and better educated child care providers.

Parent Survey: Parents reported that finding and maintaining child care for children with special needs can be difficult. However, parents found TA to be very helpful in lessening the challenges and gave positive ratings to both the TA and the child care program where TA was provided. TA was associated with child care stability, with 80% of the children remaining in their placement at least 6 months. Although many parents received the support needed for a successful child care placement, other parents would have liked help identifying providers willing and qualified to provide special needs child care.

In general, these data indicate that the services provided through the Special Needs Child Care Component are helping families in Cuyahoga County locate and maintain successful child care placements. TA and training are also assisting child care providers to acquire the attitudes, skills, and confidence needed to care for this population of children. There remain, however, questions to be addressed, such as how these services are impacting the actual quality of children's experiences.

Introduction

The quality of child care is of growing national concern. As the number of mothers of young children entering or returning to the workforce increases, it is essential to consider the consequences of this change for children who are frequently placed in the care of others for significant portions of their early lives. Research has found that child care experiences affect children's cognitive and socio-emotional development (NICHD Early Child Care Research Network, 2002; Peisner-Feinberg et al., 2001). Research has also shown that while quality child care exists, most child care is of mediocre or poor quality (Burchinal, Roberts, Nabors, & Bryant, 1996; Peisner-Feinberg et al., 2001; Phillips & Adams, 2001).

If parents of typically developing children face challenges in locating affordable, quality child care, this is even more true for parents of children with special needs. Parents of children with special needs report that they often encounter child care programs that are expensive, low quality, inconveniently located, and unable to meet the special needs of their children (Warfield & Hauser-Cram, 1996). While similar concerns are often expressed by parents of typically developing children, Freedman, Litchfield, and Warfield (1995) argue that "what distinguishes families of children with disabilities from other working families is the intensity and complexity of the arrangements required to balance work and home requirements successfully" (p. 512). Parents of children with special needs have a different working experience and unique issues with which they must contend. Booth and Kelly (1998) found that mothers of infants with special needs enter the work force later and are more likely to have child care provided by a relative than other mothers. Mothers of children with special needs also work fewer hours than other mothers (Booth & Kelly, 1998; Landis, 1992). Although some mothers may alter their employment and child care plans easily and willingly, the choices available to many mothers are limited.

Locating child care is particularly difficult for parents of children with more severe special needs such as multiple disabilities, low cognitive functioning, and significant behavior problems (Booth & Kelly, 1999; Freedman et al., 1995; Palfrey, Walker, Butler, & Singer, 1989; Warfield & Hauser-Cram, 1996). Given the challenges they face, it is not surprising that parents of children with more significant special needs are more likely to report that their employment status is adversely affected by their children (Booth & Kelly, 1999; Palfrey et al., 1989).

Finding child care for children with special needs is difficult in part because child care providers are often reticent to accept these children into their programs. Reasons for this include negative staff attitudes, lack of staff training, lack of specialized equipment, and the perceived increased costs associated with caring for these children (Berk & Berk, 1982; Chang & Teramoto, 1987; Krajicek & Moore, 1993). Berk and Berk (1982) found that although 58% of centers surveyed in the Washington, DC area stated that they were willing to accept children with handicaps into their programs, most of these centers were unwilling to accept children who were not toilet-trained and/or not ambulatory. Thus, despite the stated willingness of centers to accept children with special needs, the restrictions they impose substantially reduces the number of centers that actually allow these children to enter their programs.

Although research is limited, education and training of child care providers have been linked to their willingness to serve children with special needs (Berk & Berk, 1982; Dinnebeil, McInerney, Fox, & Juchartz-Pendry, 1998). Consultation and training are viewed as key strategies to help child care providers accept and better care for children with special needs

(Klein & Sheehan, 1987; Palsha & Wesley, 1998; Wesley & Buysee, 1996). It is thought that with support, child care providers can learn how to make the necessary modifications in routines and activities that will enable each child to participate in meaningful ways. Locally, there is some evidence to support this proposition from a separate evaluation of one Special Needs Child Care Component program (Safford, Rogers, Habashi, & Kabha, 2001). Positive Education Program's Day Care Plus provided on-site training and technical assistance to child care centers experiencing difficulties caring for and retaining children with behavior problems. The providers reported that this type of support was very helpful because it enabled them to more effectively meet the needs of children with behavior problems in a developmentally appropriate manner.

Nationally, special needs child care has received little attention by policy makers, researchers, or the media. Nonetheless, it is of significant concern to the many families of children with special needs, to child care providers, and to others who are indirectly affected by the lack of quality special needs child care, such as employers and those assisting Ohio Works First mothers find employment. The developers of the Early Childhood Initiative recognized the importance of this issue and responded by including special needs child care as a Component of the ECI.

Program Description

The Early Childhood Initiative implemented the Special Needs Child Care Component to improve child care for children with special needs in Cuyahoga County. Special needs child care is broadly defined as child care for children who require additional support in a child care setting. This definition includes, but is not limited to, children with diagnosed medical conditions, developmental delays, biological risk factors, environmental risk factors, and significant behavior problems.[1] Children with special needs may be identified either before they are placed in child care or while attending a child care setting.

Parents of children whose special needs are identified prior to placement often need help locating a child care center or family child care home that is willing and able to accept their child. Child care providers who are willing to serve these children frequently require assistance learning how to best meet the children's physical and developmental needs. For example, providers may need to learn to use specialized equipment, be educated about dietary restrictions, or acquire additional classroom management techniques. Thus, these families and providers often need support to ease the challenges associated with the transition to a suitable child care arrangement.

When children's special needs are identified after they are placed in a child care setting, parents and child care providers require support as well. Providers often feel they cannot adequately attend to the needs of these children and may inform parents that child care will need to be found elsewhere. This situation is particularly common for children who exhibit behavior problems. If children are to be maintained successfully in their child care setting, child care providers must learn how best to meet the needs of these children. Parents may need to learn what they can do to support the providers' efforts and, in some cases, may require information or referrals to other resources in the community.

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[1] The following are examples of each type of special need: (a) diagnosed medical conditions--autism, cerebral palsy; (b) developmental delays--cognitive delays, motor delays; (c) biological risk factors--prematurity, health concerns; (d) environmental risk factors--child abuse or neglect; and (e) behavior problems--aggression, noncompliance.

Thus, locating and maintaining a stable child care placement for children with special needs is of paramount importance to parents who need child care so that they can work or attend school. Because of the diverse range of medical, physical, developmental, and socio-emotional characteristics of this group of children, the ECI Partnership implemented a multi-dimensional approach in Cuyahoga County. This approach takes into consideration the needs of the families and the child care providers in the community.

The program logic of the Special Needs Child Care Component appears in Figure 6.1. The Special Needs Child Care Component has two goals. The first is to build capacity of special needs child care in the County. This is intended to ease the burden parents face when searching for appropriate child care and better equip providers to cope with some of the challenges that can arise when caring for children with special needs. The second goal is to improve families' access to appropriate services for children with special needs.

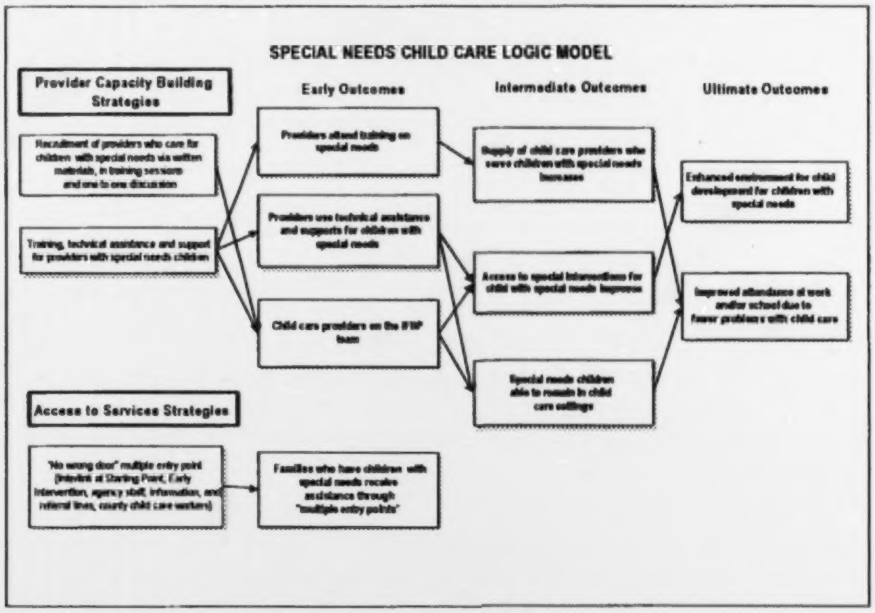
SPECIAL NEEDS CHILD CARE LOGIC MODEL
Provider Capacity Building Strategies
Early Outcomes
Intermediate Outcomes
Ultimate Outcomes
Recruitment of providers who care for children with special needs via written materials, in training sessions and one to one discussion
Training, technical assistance and support for providers with special needs children
Providers attend training on special needs
Providers use technical assistance and supports for children with special needs
Child care providers on the IFSP team
Supply of child care providers who serve children with special needs increases
Access to special interventions for child with special needs improves
Special needs children able to remain in child care settings
Enhanced environment for child development for children with special needs
Improved attendance at work and/or school due to fewer problems with child care
Access to Services Strategies
"No wrong door" multiple entry point (Invitations at Starting Point, Early Intervention, agency staff, information, and referral lines, county child care workers)
Families who have children with special needs receive assistance through "multiple entry points"

Figure 6.1 Special Needs Child Care Logic Model

The strategies to achieve the goal of increasing the capacity of providers to serve children with special needs include: (a) increasing the number of child care spaces for children with special needs and (b) enhancing the skill level of child care providers by providing training and technical assistance (TA). The early outcomes projected in this logic model include providers attending trainings and receiving technical assistance. Training and technical assistance help prepare child care providers to bring their unique perspective to the Individualized Family Service Plan (IFSP) teams. These early outcomes should make it easier for parents to place and maintain their children in appropriate child care and should improve their access to early intervention services. Through the use of these strategies and building on early and intermediate outcomes, it is anticipated that children will be cared for in stable child care environments that

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support positive child development. These outcomes should enable parents to improve their school and/or work attendance.

The strategies listed in the logic model to address the goal of improving access to appropriate child care include helping parents locate suitable child care and other necessary services (e.g., Early Intervention, Early Start). This assistance is based upon the "no wrong door" policy and is designed to decrease the time it takes families to obtain appropriate services.

The Special Needs Child Care Component contracted six local community agencies to provide training, technical assistance, and child care placement assistance to parents and child care providers. See Table 6.1 for an overview of the numbers of children to be served by the agencies. Each of these agencies specializes in a different aspect of special needs child care. Some of the agencies are equipped to help child care providers manage children with challenging developmental or socio-emotional behaviors, other agencies support child care providers caring for children with physical or medical special needs, and there are also agencies that specialize in helping families find appropriate child care placements. Appendix 6.1 describes the six contracted special needs child care agencies and it also includes descriptions of two other agencies involved in the Component and additional resources available to the agencies.

Table 6.1 Contracted Service Levels of Children with Special Needs by Community-Based Agencies

Agency	Year 1 Contract Period 01/15/00 – 09/30/00	Year 2 Contract Period 10/01/00 – 09/30/01	Year 3 Contract Period 10/01/01 – 6/30/02
The Achievement Center for Children (ACC)	200	200	150
Applewood Centers	35	35	35
Beech Brook	--	–	30
Cuyahoga County Board of Health (CCBH)	30	61	91
Hanna Perkins Center (HPC)	35	35	–
Positive Education Program (PEP)	200	200	200
Total	**500**	**531**	**506**

Note: Hannah Perkins Center ceased participation at the end of Year 2 and Beech Brook joined ECI as Year 3 began.

Evaluation Design

Evaluation Questions:

The Special Needs Child Care Component was established to improve the child care experience of families who have children with special needs. Because the ECI built on and enhanced the existing services of care, the evaluation was structured to assess the current status of the special needs child care system rather than compare outcomes before and after the ECI was launched.

The specific evaluation questions are as follows:

- Has special needs child care TA and training been used by child care providers in the County?

- What is the relationship between TA and the stability of child care placements?
- Do parents of children with special needs feel they have adequate access to special needs child care and related services?
- Does special needs child care TA and training improve the capacity of child care programs to care for children with special needs?

Method:

The evaluation relied upon three sources of data: (a) Administrative Data, (b) Supervisor Survey, and (c) Parent Survey. Together, these data provide a comprehensive examination of special needs child care in the County. A review of Individualized Family Service Plans of children in child care was to serve as an additional data source, but a sufficient sample size could not be obtained.

Administrative Data

The special needs child care agencies collect information about the following aspects of their services: (a) demographic characteristics of children, parents, and providers; (b) TA visits; (c) trainings; (d) child care placement services; and (e) child care stability. This information is submitted to Starting Point for compilation into a centralized database. The Administrative Database being reported on here includes data from January 1, 2000 through June 30, 2002.

The data are incomplete for several reasons. First, the database was being constructed during the first 18 months of the project and much of these data were collected retrospectively. Second, one agency did not provide data to Starting Point due to client confidentiality concerns. Third, only the data for children with affirmative consent forms on file could be used in the study and for early periods many consent forms were not available. However, study participation increased significantly over time as administrative procedures improved and by June 2002, 83% of the children receiving services participated in the study.

In Table 6.2, we compare the children in the Starting Point Database with the children in the Study Sample Database. The Starting Point Database contains all documented special needs child care services.[2] The Study Sample Database is the database used for all administrative data analyses and contains: (a) all data on the child care providers in the Starting Point Database, but (b) child-specific data only for children with affirmative consent forms on file. The Starting Point Database and the Study Sample Databases are compared in order to judge the extent to which the children in the study sample reasonably represent the population of children who received documented special needs child care services. In many respects, the study sample is comparable to the group of children in the Starting Point Database, however, the study sample: (a) over-represents White children and under-represents African American children, (b) over-

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[2] The Starting Point Database contains documentation on services provided to 1,181 children. This represents 69% of the 1,711 children that the Agency Providers Reports indicate were served during this time period. The extent to which the children in the Starting Point Database are representative of all the children served by the agencies is not known. Hannah Perkins Center reported serving 199 children, however none are included in the Starting Point Database due to agency-specific client confidentiality concerns. To varying degrees, the other five agencies provided services to children not documented in the Starting Point Database.

Table 6.2 Comparison of Starting Point Database and Study Sample Database: Children's Characteristics

Characteristic		Starting Point Database (N=1,055)[a]		Study Sample Database (N=471)[a]	
		Number	Percent	Number	Percent
Gender	Male	690	65.4%	300	63.7%
	Female	365	34.6%	171	36.3%
Age	< 1 year old	91	8.6%	49	10.4%
	1 year olds	68	6.4%	33	7.0%
	2 year olds	138	13.1%	63	13.4%
	3 year olds	230	21.8%	102	21.7%
	4 year olds	227	21.5%	84	17.8%
	5 year olds	100	9.5%	46	9.8%
	6 years and older	180	17.1%	92	19.5%
	Missing	21	2.0%	2	0.4%
	Average Age	4.22		4.29	
Race	African American	498	47.2%	181	38.4%
	White	305	29.0%	162	34.4%
	Hispanic	40	3.8%	16	3.4%
	Other	43	4.1%	28	5.9%
	Missing	169	16.0%	84	17.8%
Special Need[b]	Biological	102	9.7%	48	10.2%
	Environmental	33	3.1%	8	1.7%
	Medical	344	32.6%	179	37.4%
	Development	302	28.6%	156	33.1%
	Behavioral	400	37.9%	140	29.7%
	Other	47	4.5%	26	5.5%
	Missing	47	4.5%	19	4.0%
Agency[b]	ACC	488	46.3%	242	51.4%
	Applewood	125	11.2%	86	18.3%
	Beech Brook	5	.5%	3	.6%
	CCBH	146	13.8%	71	15.1%
	PEP	417	39.5%	154	32.7%

[a] These counts represent the number of unduplicated children served. The Starting Point Database documents services to 1,181 duplicated children (i.e., children are counted more than once if served by more than one agency) and 1,055 unduplicated children (i.e., children counted only once). The Study Sample Database documents services to 556 duplicated children and 471 unduplicated children.

[b] Duplicated Counts. Children may have more than one special need or be served by more than one agency.

Source: Starting Point.

represents children with medical and developmental concerns and under-represents children with behavioral problems, and (c) over-represents children served by ACC and Applewood, and under-represents children served by PEP.

Supervisor Survey

The Supervisor Survey was designed to gain an understanding of the perspectives and experiences of child care center administrators in the County who have utilized the special needs child care services that are part of the ECI. These administrators are responsible for the daily operations of the centers and are familiar with the centers' policies and practices related to children with special needs. The survey included questions about center characteristics, children with special needs being served, staff attitudes, comfort levels, capabilities, and the TA and training received. After review by the Special Needs Child Care Component Evaluation Sub-committee,[3] the survey was finalized. A copy is available from the authors.

In April 2002, the Director of Starting Point sent a letter describing the study to 204 centers identified as having received special needs child care services between January 2000 and February 2002. The surveys were sent to the centers a week later. Non-respondents received a second mailing and reminder phone calls. Supervisors completed the survey anonymously and received a $10 gift card to Wal-Mart for participation.

One hundred thirteen supervisors (55%) returned the survey. Table 6.3 presents the characteristics of the participating supervisors and their child care centers. Overall, the supervisors were well-educated and experienced in the field of child care. A diverse group of centers was represented in this sample.

Table 6.3 Characteristics of Supervisor Survey Respondents and Their Child Care Centers (N=113)

Characteristic		
Supervisor Title	Director	57%
	Assistant Director	4%
	Site Administrator	20%
	Other	18%
Supervisor Education	High school/ GED	2%
	Associate degree/ Some college	44%
	Bachelor's degree	40%
	Master's degree or higher	14%
Supervisor: Length of Time at Current Child Care Facility	Mean	8 years
	Range	.5-37 years
Supervisor: Length of Time in Early Childhood Education	Mean	14 years
	Range	.75-45 years
Type of Center	Church operated center	8%
	Head Start	18%
	YMCA/YWCA program	7%
	Private non-profit	38%
	Private for-profit	29%
	Other	1%

(continues)

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[3] The Evaluation Sub-committee includes agency representatives, evaluation team representatives, and a County representative.

Table 6.3 Characteristics of Supervisor Survey Respondents and Their Child Care Centers (N=113) (continued)

Characteristic		
Ages of Children Served at Center[a]	Infants	52%
	Toddlers	70%
	Preschoolers	91%
	School age	66%
Number of Children Enrolled at Center	Mean	75
	Range	8-286
Center Hours Open (Daily)	Mean	11
	Range	3-24
Center Hourly Wages of Staff Working Directly with Children	*Minimum* Wage at Center – Mean	$7.19
	Minimum Wage at Center – Range	$5.15-$13.00
	Maximum Wage at Center – Mean	$11.06
	Maximum Wage at Center -Range	$7.00-$21.76

[a]Centers can serve multiple age groups.

Parent Survey

A second survey was designed to learn about the child care experiences of parents whose children had received TA. Administered by telephone, the parent survey was constructed to address two issues: (1) parents' general experiences and needs related to child care and (2) the effect of TA on the child care experiences of families. After review by the Special Needs Child Care Component Evaluation Committee and pilot-testing with four parents whose children received TA, the survey was finalized. A copy of the 25-minute survey is available from the authors.

Parents eligible for participation in the survey included those parents in the study sample whose children had received TA during 2001. Parents with more than one child receiving TA were asked about their youngest child or, in the case of twins, one child was randomly chosen. A total of 109 parents were identified as eligible and all were contacted during the months of April through June 2002. Eligible parents received postcards, letters, and phone calls describing the study. Participating parents received a $20 gift certificate to Wal-Mart.

Fifty-nine parents (54%) completed interviews. Table 6.4 presents the characteristics of the parents and children who participated in the study. Although the number of parents interviewed was small, the findings represent the experiences of families from a range of backgrounds and circumstances.

Table 6.4 Characteristics of Parent Survey Respondents and Their Children (N=59)

Characteristic		
Respondent		
Relationship to Child	Mother	90%
	Father	7%
	Grandmother/Foster Mother	3%
Age	20-29	30%
	30-39	51%
	40 and Over	19%
Race	African American	42%
	White	51%
	Hispanic	5%
	Asian	2%
Marital Status	Single (Never Married)	36%
	Married	39%
	Divorced/Separated	25%
Education	Less than high school	7%
	High school/GED	29%
	Associate degree/Some college	36%
	Bachelor's degree or higher	27%
Income	Under $10,000	7%
	$10,000-$19,999	24%
	$20,000-$29,999	18%
	$30,000-$49,999	20%
	Over $50,000	29%
	Missing	2%
Child		
Age (at Interview)	Mean	5 years
	Range	1-13 years
Child Care Program Attended	Center	76%
	Family Child Care Home	24%
Child Still Attending Program?	Yes	56%
Primary Special Need	ADHD	17%
	Autism	8%
	Behavior	19%
	Developmental Concerns	12%
	Down Syndrome	5%
	Environmental	3%
	Medical Condition(s)	24%
	Missing	12%
Special Need(s) Identified Before Placement	Yes	64%

Findings

The results are reported below for administrative data, the supervisor survey, and the parent survey. The results demonstrate that child care providers and families throughout the County are using special needs child care services. Technical assistance, training, and placement services have had a number of positive effects on child care for children with special needs, but special needs child care continues to pose challenges for some providers and families.

Special Needs Child Care Services Used by Child Care Providers and Families:

The Study Sample Administrative Database documents the special needs child care services that were used by children, parents, and child care providers in the County. The descriptive data reported in this section reveals who received services, where they received them, and for what reasons.

Families Receive Assistance Finding Child Care

The Achievement Center for Children and Interlink at Help Me Grow both offer assistance to parents in need of child care for their children with special needs. ACC maintains records of the placement request and tracks the course of the placement process. Interlink at Help Me Grow documents only the request for placement assistance.[4]

Table 6.5 Characteristics of Children Receiving Placement Assistance

Characteristic		ACC (N=222)	Interlink at Help Me Grow (N=48)
Gender	Male	58%	50%
	Female	41%	50%
Age	Mean	3.45	3.25
	Range	0-12	0-11
Race	African American	50%	42%
	White	22%	38%
	Hispanic	3%	0%
	Other	3%	6%
	Missing	23%	15%
Special Need[a]	Biological	18%	27%
	Environmental	2%	2%
	Medical	68%	65%
	Developmental	37%	25%
	Behavioral	4%	19%
	Other	3%	4%

[a] Duplicated Counts: Children may have more than one special need.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

After limiting the cases to those with complete data, ACC had 247 placement requests for 222 children and Interlink at Help Me Grow handled 80 requests for 48 children. As these numbers reveal, some families require placement assistance more than once. Table 6.5 illustrates the characteristics of the children served by the two agencies. The children were, on average, young and exhibited a variety of special needs although about half had medical concerns. The agencies served similar populations, however ACC assisted a higher percentage of boys and children with developmental concerns and Interlink at Help Me Grow helped more children with biological risk factors and behavioral needs.

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[4] Interlink does not ask parents to sign a consent form. Thus, this sample is limited to children whose parents agreed to participate in the study when they received other special needs child care services.

Of the 124 ACC requests that resulted in a placement, 43% were placed in a family child care home and 57% were placed in a center-based program. Requests did not result in a child care placement in 123 cases for reasons such as assistance was no longer needed, child care had been found by the parents themselves, and suitable child care had not been located yet.

In sum, ACC and Interlink at Help Me Grow offer child care placement assistance to many families in the community. The children benefiting from this assistance have a range of special needs and are placed in both child care centers and family child care homes.

Child Care Providers Receive Special Needs Child Care Training

Special needs child care trainings are conducted by all of the special needs child care agencies. Child care providers are the primary training participants and parents take part to a small degree. Two hundred fifty-six trainings were conducted on topics associated with special needs child care. Trainings took two forms: (a) on-site trainings for a small number of providers at their child care program and (b) workshops at independent locations intended for larger groups of providers from different child care programs.

Table 6.6 presents information about each agency's on-site trainings and workshops. ACC and Applewood primarily gave workshops, while CCBH and PEP held both on-site trainings and workshops. Providers were the primary training attendees, although sixteen PEP trainings were attended by at least one parent. On-site training attendance ranged from 1 to 29 with an average attendance of 5. As expected, workshop attendance was higher, ranging from 1 to 56 with an average attendance of 12.

Table 6.6 Workshops and On-Site Trainings by Agency

Agency[a]	Number of On-Site Trainings	Number of Workshops	Sample Topics
ACC	1	16	• Including Children with Disabilities in Your Family Child Care Home • Adapting the Child Care Environment
Applewood	0	15	• Aggression • Preschool Guidance
CCBH	34	11	• Serving Children with Special Needs • Asthma
PEP	129	50	• Creating Teamwork • Using Positive Guidance
Total	164	92	

[a] Beech Brook is not included in this table because they did not hold any trainings.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Over 900 child care providers attended at least one training session. Table 6.7 describes the characteristics of the provider and parent attendees for whom data were available. The providers were primarily women working in center-based programs, but were from a wide age range. As anticipated, few parents attended a special needs child care training.

Table 6.7 Characteristics of Providers and Parents Who Received Training

Characteristic		Providers (N=903)	Parents (N=9)
Gender	Male	3%	11%
	Female	96%	89%
Age	Mean	36	31
	Range	17-76	21-45
Race	African American	20%	11%
	White	32%	89%
	Hispanic	2%	0%
	Other	1%	0%
	Missing	46%	0%
Type of Provider	Center	91%	—
	Family Child Care Home	9%	—

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Overall, the data indicate that on-site trainings and workshops on a number of special needs child care topics are taking place in the County. Center-based providers are the primary attendees of these trainings.

Technical Assistance Is Used by Providers and Families

Technical Assistance is defined as on-site assistance given to a child care provider or parent on behalf of an individual child. All of the agencies providing TA offer individualized technical assistance, although the content of the technical assistance differs by agency and reflects the needs of the child.[5]

Fully 3,174 TA visits on behalf of children with special needs were documented in the Study Sample Database. Of these, 548 visits (17%) were with more than one provider and 91 (3%) were for more than one subject matter (e.g., "behavior" and "Down Syndrome"). Table 6.8 describes the characteristics of the 399 children on whose behalf technical assistance was provided. About two-thirds of the children were boys, ranging from infancy to adolescence, with an average age of about 4 years old. Technical Assistance is primarily provided on behalf of children with medical, developmental, and behavioral special needs with each of these special needs being associated with about one-third of the children served.

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[5] Applewood and PEP also provide TA to child care providers that is more general in nature, but this type of TA is not reliably documented.

Table 6.8 Characteristics of Children Who Received Technical Assistance (N=399)

Characteristic		
Gender	Male	64%
	Female	36%
Age	Mean	3.84
	Range	0-15
Race	African American	36%
	White	37%
	Hispanic	3%
	Other	7%
	Missing	18%
Special Need[a]	Biological	9%
	Environmental	1%
	Medical	33%
	Developmental	33%
	Behavioral	34%
	Other	6%

[a]Duplicated Counts: Children may have more than one special need.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Table 6.9 presents the characteristics of the providers and parents (or other primary caregivers) who received at least one technical assistance session with an agency consultant. The adults who were served were overwhelmingly female, White or African American, and employees of child care centers.

Table 6.9 Characteristics of Providers and Parents Who Received Technical Assistance

Characteristic		Providers (N=760)	Parents (N=246)
Gender	Male	3%	5%
	Female	97%	95%
Age	Mean	36.77	31.82
	Range	17-76	17-66
Race	African American	33%	34%
	White	43%	39%
	Hispanic	2%	4%
	Other	1%	1%
	Missing	21%	22%
Type of Provider	Center	89%	—
	Family Child Care Home	11%	—

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Table 6.10 illustrates the different models of TA that the agencies employed to serve their clients. For example, CCBH typically provides TA for young children with medical problems, the consultants conduct few TA visits per child, and their involvement with children is often of a shorter duration than other agencies. This description is consistent with the CCBH model which is focused on developing a Nursing Care Plan used to facilitate the transition to child care for young children with health problems. In contrast, PEP serves slightly older children exhibiting behavior problems and their consultants visit providers often and over a longer period of time. This is consistent with the PEP model which is aimed at providing long-term assistance to providers to successfully maintain children in child care settings and improve providers' overall skills. See Appendix 6.2 for a more extensive break down by quarter of the number of TA visits and children served by each agency.

Table 6.10 Characteristics of TA Delivered by Agency (Number of Children Served = 399; Number of TA Visits = 3,174)

Characteristic	ACC	Applewood	Beech Brook	CCBH	PEP
Number of Children Served[a]	157	86	3	61	154
Total Number of TA Visits	474	1273	5	100	1322
Age of Child					
Mean	3.41	5.94	4.66	2.00	3.37
Range	0-12	3-12	3-6	0-9	0-15
Number of Visits per Child					
Mean	3.01	14.80	1.66	1.63	8.58
Range	1-30	1-54	1-2	1-4	1-54
Number of Days between First and Last Visit					
Mean	74.42	202.01	3.00	35.47	177.46
Range	0-661	0-644	0-7	0-460	0-897
Special Need[a]					
Biological	18%	2%	0%	26%	1%
Environmental	1%	5%	0%	2%	0%
Medical	68%	6%	33%	80%	7%
Developmental	42%	52%	0%	23%	15%
Behavioral	4%	37%	67%	2%	68%
Other	3%	0%	0%	5%	12%
Recipient of TA[b]					
Center Provider	47%	54%	33%	43%	71%
FCCH Provider	18%	0%	0%	16%	1%
Parent	34%	46%	67%	41%	28%

[a] Duplicated Counts: Children may be served by more than one agency or have more than one special need.

[b] Children may be linked with more than one adult (e.g., provider, parent) receiving TA on their behalf. The number of adult recipients of TA per agency is: ACC (n=245); Applewood (n=69); Beech Brook (n=3); CCBH (n=97); PEP (n=369).

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

In sum, the special needs child care agencies are providing technical assistance to both child care providers and parents in the community. Center-based providers are using TA to a greater degree than are family child care home providers. As intended, special needs child care technical assistance is used on behalf of children of all ages with a range of special needs, most commonly those exhibiting developmental, medical, or behavioral needs. The agencies' TA models reflect the diversity of the needs being served as each agency provides TA in a manner that is consistent with its role in enhancing special needs child care in the County.

Special Needs Child Care Stability

One goal of the Special Needs Child Care Component was to encourage the stability of children's placements, defined as remaining in one child care setting for at least 6 months. Reliable follow-up information was not collected by the TA agencies. As a result, Starting Point gathered this data in Spring 2002 by contacting child care providers and parents. It was difficult to obtain complete data for many of the children because of disconnected phone lines, unreturned calls, and an inability to get contact information from providers due to confidentiality issues. Information was collected on 180 (20%) of the 889 children in the dataset.[6] Thus, these analyses are a preliminary attempt to examine child care stability.

The average length of placement in child care was almost 13 months. Two-thirds of the children remained in their placement for 6 months or longer. As detailed in Table 6.11, children remaining in a child care program for at least 6 months tended to be young, White, and have behavior problems. Shorter placements were associated with older children and developmental or medical special needs. Older children may have experienced shorter placements because school attendance often requires changes in child care arrangements.

Table 6.11 Stability of Child Care Placement and Children's Characteristics (N=180)

Characteristic		Children in Placement Less than 6 Months (n=61)	Children in Placement 6 Months or Longer (n=119)
Gender	Male	64%	62%
	Female	36%	38%
Age	Mean	4.43 years	2.71 years
	Range	0-15 years	0-9 years
Race	African American	33%	24%
	White	38%	61%
	Hispanic	2%	2%
	Other	11%	8%
	Missing	16%	5%
Special Need[a]	Biological	11%	4%
	Environmental	0%	0%
	Medical	36%	24%
	Developmental	51%	20%
	Behavioral	25%	57%
	Other	5%	5%

[a] Duplicated Counts: Children may have more than one special need.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

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[6] Twelve of these children were placed in their child care setting prior to the beginning of ECI. Their placement dates ranged from 11/1/95 to 6/1/99.

Starting Point is seeking to improve the quality of this data. Thus, more will be known about special needs child care stability in the future.

Services Used by Child Care Providers and Families Throughout Cuyahoga County

Special needs child care services are utilized by child care providers and families throughout the County. As illustrated in Figure 6.2, 378 child care programs had at least one provider who received technical assistance and/or training. Of these programs, 155 programs (41%) were family child care homes and 223 (59%) were center-based or Head Start programs. The 223 center-based and Head Start programs that received services represent 61% of all the center-based/Head Start programs in the County. Approximately one half of the child care programs were located within the city of Cleveland. Services, especially training, appear to be more heavily concentrated on the east side of the City.

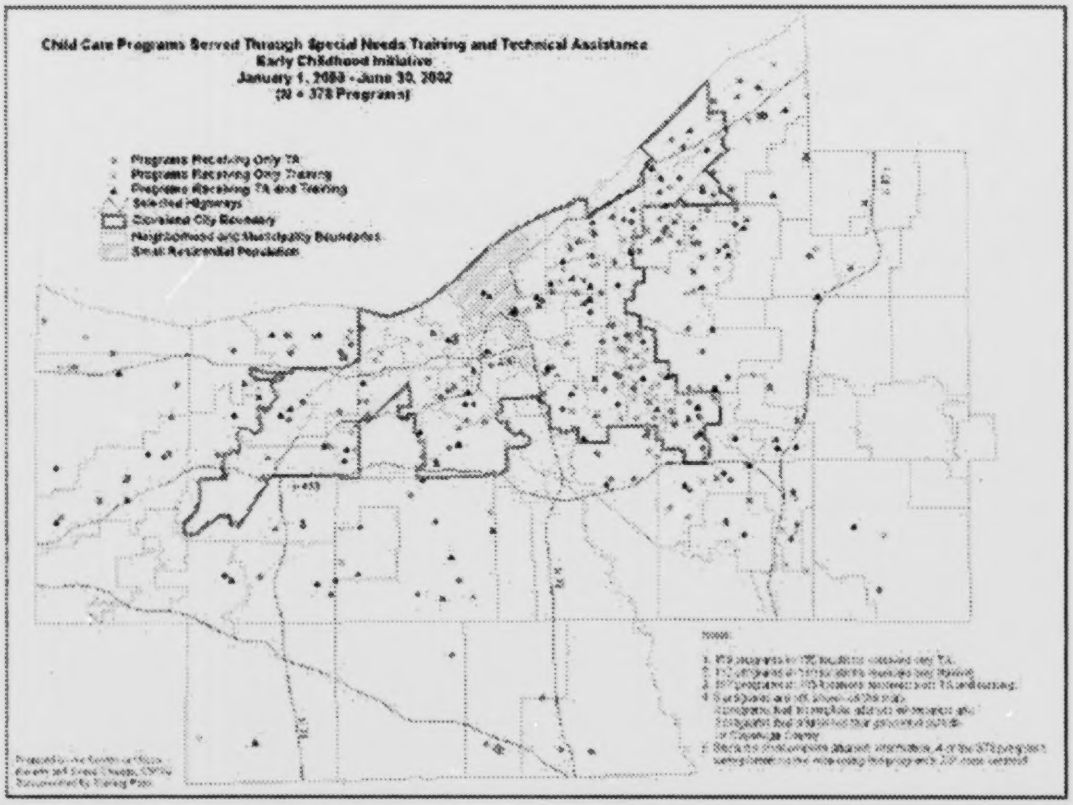
Child Care Programs Served Through Special Needs Training and Technical Assistance
Early Childhood Initiative
January 1, 2000 - June 30, 2002
(N = 378 Programs)
Programs Receiving Only TA
Programs Receiving Only Training
Programs Receiving TA and Training
Selected Highways
Cleveland City Boundary
Neighborhood and Municipality Boundaries
Small Residential Population

Figure 6.2 Map of Locations of Child Care Programs Served

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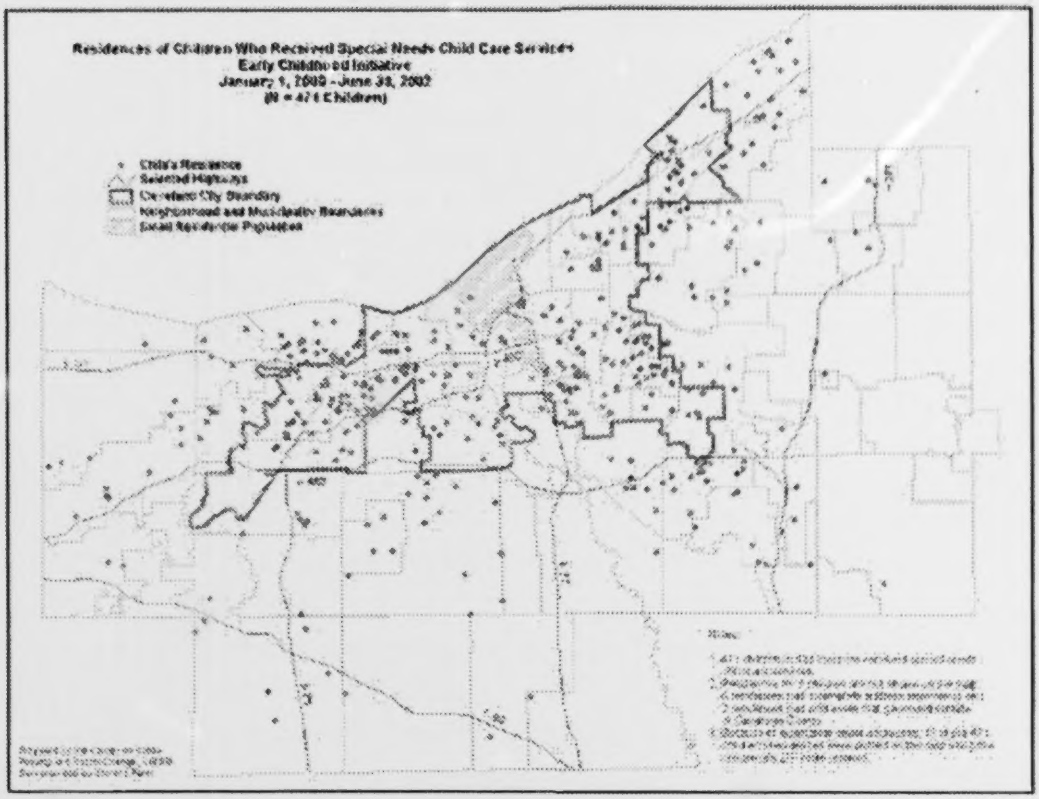
Residences of Children Who Received Special Needs Child Care Services
Early Childhood Initiative
January 1, 2000 - June 30, 2002
(N = 471 Children)
Child's Residence
Selected Highways
Cleveland City Boundary
Neighborhood and Municipality Boundaries
Small Residential Population

Figure 6.3 Map of Residences of Children Served

Figure 6.3 maps the location of the residences of children who received special needs child care services (i.e., placement assistance and/or TA). As with the child care programs, about half of the children receiving services lived in the city of Cleveland. A difference between the two maps is that the children's residences are more dispersed throughout the County.

These maps further demonstrate that special needs child care services are utilized by a diverse group of children and providers in the County. For the most part, technical assistance and training are taking place in the areas where the children reside. Family child care homes comprise over 40% of the *programs* using special needs child care services. This suggests a greater use of these services by family child care homes than is evident when service usage is measured by comparing family child care *providers* to center-based *providers.*

Supervisors Report that TA, Training, and Quality Providers Are Key to Special Needs Child Care:

The 113 respondents to the Supervisor Survey held a range of views on the topic of special needs child care with some indicating that their centers were well-equipped to care for children with special needs, others reporting that their centers were prepared to care for a small number of children or only some types of special needs, and yet others indicating that it was unlikely they could provide quality special needs child care. The findings reported here identify trends in the supervisors' responses in order to: (a) capture the overall status of special needs child care, (b) determine the effect of TA and training on willingness to provide care, and (c) identify other factors that contribute to a willingness to provide special needs child care.

Table 6.12 Number of Children with Special Needs at Centers (N=113)

Item		
Number of Children with Physical, Medical & Developmental Conditions	0	24%
	1	19%
	2	24%
	3-5	19%
	6 and above	15%
Number of Children with Significant Behavior Problems	0	31%
	1	20%
	2	11%
	3-5	21%
	6 and above	17%
Change in Number of Children with Physical, Medical & Developmental Conditions[a]	Decreased	7%
	Increased	22%
	Remained the same	71%
Change in Number of Children with Significant Behavior Problems[a]	Decreased	14%
	Increased	31%
	Remained the same	55%

[a] Compared to 1 year ago.

Table 6.12 presents the number of children with special needs at the centers and the change in the number of these children in the past year. Most of the centers had two or fewer children with physical, medical, and developmental needs and the same was true for children with behavioral needs. The number of children at centers with physical, medical or developmental special needs and the number of children at centers with significant behavior problems were significantly correlated ($p<.01$), suggesting that centers with more children with physical, medical or developmental needs also enrolled more children with behavior problems. Over half of the centers had at least one child with an Individualized Education Plan and 38% had at least one child with an Individualized Family Service Plan.[7] Although most supervisors did not see the number of children with special needs in their center change in the past year, 22% of supervisors reported an increase in the number of children with physical, medical or developmental needs, and 31% reported an increase in the number of children with significant behavior problems. Thus, most centers have a small number of children with special needs under their care, but this number may be on the rise.

On average, supervisors felt their staff was "somewhat capable" of caring for children with special needs. Fully 79% reported that their staff was somewhat or very capable of caring for children with physical, medical, or developmental special needs and two-thirds of the supervisors indicated that their staff was somewhat or very capable of caring for children with behavior problems. Supervisor responses suggest that child care providers view caring for children with special needs as more demanding than caring for other children. For example, 92% of supervisors agreed or strongly agreed that their staff considered specialized training essential when caring for children with physical disabilities. For the most part, however, providers do not appear to advocate separate programs for children with special needs. Provider comfort levels appear to be dependent on the type of special need. For example, supervisors rated their providers as more comfortable caring for children with speech disorders and asthma and less comfortable caring for children with multiple disabilities or feeding difficulties. Significant correlations among comfort level items suggest that providers who are comfortable caring for children with one kind of special need are more comfortable with other special needs.

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[7] Individualized Family Service Plans (IFSP) and Individualized Education Plans (IEP) are written intervention plans for children with special needs. IFSPs are for children under 3 years old and IEPs are for children 3 and over.

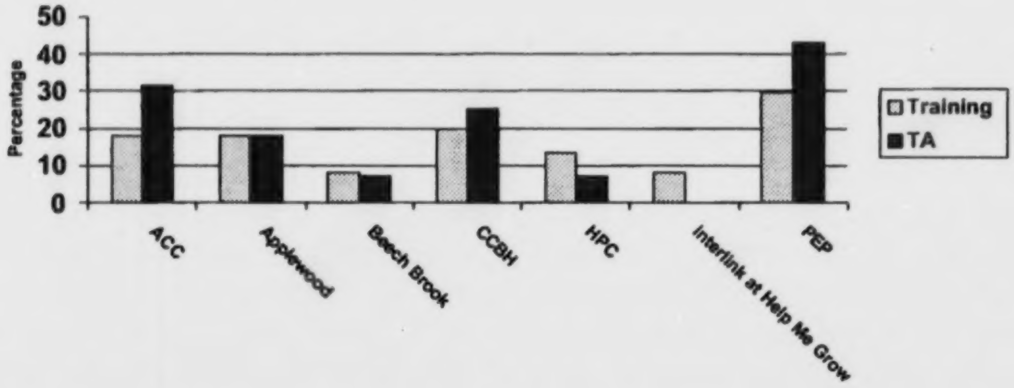

Figure 6.4 Percentage of Centers that Received Training and TA from Agencies (N=113)

Figure 6.4 presents the percentages of centers that reported having received TA and training from each of the agencies between September 2001 and Spring 2002 (approximately 6 months). Supervisors reported receiving the most TA and training from PEP.[8] Consistent with the finding that PEP and ACC provided the most TA, supervisors reported that TA primarily focused on behavior problems (55%) and developmental delays (37%), while TA for other special needs was less common. Not all centers had received TA or training in the past 6 months, with approximately 30% of the supervisors reporting that TA had not taken place at their center and about 40% reporting that center staff had not attended any trainings.

Thus, as a group, the supervisors reported a range of experiences with TA and training in the past 6 months. This allowed for an examination of the relationship between the centers' use of TA and training and a number of indicators of the centers' willingness to care for children with special needs. We also considered other factors that may be related to a center's willingness to serve this population of children. In total, the following factors were examined: (a) TA, (b) training, (c) staff hourly wage (both the minimum and maximum hourly wage), (d) percentage of staff with a degree in early childhood education/CDA, (e) staff turnover in past year, and (f) ratio of staff to children.[9]

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[8] This was expected given the contracted service levels, agency service models, and administrative data.

Table 6.13 Associations Between the Indicators of a Center's Willingness to Care for Children with Special Needs and Center Characteristics

Indicator	Associated with:
More children at center with physical, medical, and developmental needs	• More TA* • More TA and training related to serving children with physical, medical, and developmental needs* • Higher maximum staff hourly wage** • Higher percentage of staff with early education degree/CDA *
More children at center with behavioral needs	• Higher maximum staff hourly wage**
Greater staff capabilities caring for children with physical, medical, and developmental needs	• More TA and training related to serving children with physical, medical, and developmental needs** • Higher minimum staff hourly wage** • Higher percentage of staff with early education degree/CDA ** • Better staff/child ratio**
Greater staff capabilities caring for children with behavioral needs	• More TA and training related to serving children with physical, medical, and developmental needs** • Higher minimum staff hourly wage** • Better staff/child ratio*
More positive staff attitudes about caring for children with physical, medical, and developmental needs	• More training**
Greater staff comfort caring for children with physical, medical, and developmental needs	• More TA and training related to serving children with physical, medical, and developmental needs** • Higher minimum staff hourly wage** • Higher percentage of staff with early education degree/CDA**
Greater staff comfort caring for children with behavioral needs	• Higher minimum staff hourly wage*
Actions were taken to remove child from center because unable to meet child's needs[a]	No statistically significant associations
Actions were taken to remove child from center because child a threat to self or others[a]	• Lower minimum staff hourly wage ** • Lower maximum staff hourly wage* • More staff turnover*

Note: Measures of association were calculated using either a correlation or a t-test.
[a] Within the previous 6 months.
*p<.05; **p<.01

Results from these analyses are summarized in Table 6.13. The results suggest that TA and training are associated with several indicators of centers' willingness to serve children with special needs. Specifically, amount of TA was correlated with the number of children at the center with physical, medical, or developmental needs. Training was linked with more positive attitudes about serving children with special needs. In addition, supervisors at centers with more overall support (i.e., TA and training) *specifically* related to physical, medical, and developmental special needs were significantly more likely to report higher staff capabilities, comfort levels, and levels of enrollment of children with special needs. Amount of overall support specifically related to behavioral special needs was not associated with any of the indicators.

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[9] The ratio is based on the number of staff to the number of children at the center. It does not take into account the ages of children served at the center which influences the ratio, as dictated by licensing regulations.

Also linked to several indicators of a greater willingness to care for children with special needs were higher staff hourly wages and having a higher percentage of staff with a degree or certification in early education. Relationships among indicators are not included in the table, but one noteworthy statistically significant relationship is that greater staff capability for serving children with physical, medical, and developmental special needs was associated with a higher enrollment of children with these special needs ($p<.05$), suggesting that centers with more capable providers may be more inclusive in their enrollment practices.

Consistent with these findings, Figure 6.5 shows that many supervisors felt that too little TA, inadequate funding, and low staff salaries impede centers' ability to care for children with physical, medical, or developmental special needs. Supervisors' open-ended comments revealed that they would like to provide high quality care to children with special needs at their center, but it is very difficult given the realities of child care. One supervisor wrote "we would like to service a larger number of special needs children. However funding and lack of training has prevented us. . . ." Another commented "it is difficult to take children with special needs because it is tough to find qualified people to work for us because of low salaries in the child care field." Lack of provider interest and high turnover in the field make it difficult to maintain a trained staff. A supervisor noted "when we've had free training available, our staff wouldn't attend. . . . Staff turnover is so high that those who did have training have moved on to other professions." Supervisors also expressed a need for more support from some area school districts, increased training and TA, increased publicity about available training and TA, as well as a shorter time period between referral and assistance.

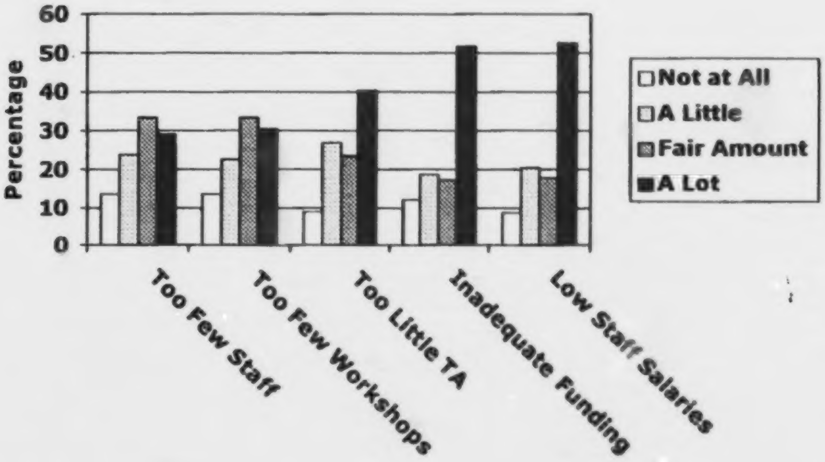

Figure 6.5 Percentage Agreement with Factors Making It Difficult to Serve Children with Physical Disabilities, Medical Conditions, or Developmental Disabilities

Supervisors reporting more positive experiences noted the importance of outside support. One supervisor praised Lakewood School District's services, adding "we have been very fortunate." A director of a PEP Day Care Plus intensive site wrote "for 3 years they [PEP consultants] have bent over backwards for our staff, families, and students." A third supervisor shared "we receive most of our special needs services such as speech, art therapy, etc., through our grantee—WSEM [West Side Ecumenical Ministries]. They provide a lot of really good services."

Overall, supervisor survey responses provide evidence that child care centers are caring for a number of children with special needs in the community and there is a desire to be more inclusive. Providers seem to be more comfortable caring for children with less complex and less severe special needs. Many center-based providers are receiving TA and training on caring for children with special needs and, indeed, these services are a key factor in strengthening centers' willingness to serve children with special needs. Higher provider wages and better educated providers are two factors also strongly linked to a greater willingness to care for children with special needs.

Parents Find Special Need Child Care Services Very Helpful:

The Parent Survey complements the Supervisor Survey by capturing the parents' perspective on special needs child care in the County. The 59 parents who participated in the study reported that while finding and maintaining child care can be challenging, special needs child care technical assistance was helpful and had a positive effect on their children's child care experiences.

As expected, parents revealed that they had experienced child care difficulties since they began searching for child care for their child with special needs. Two-thirds of parents stated that finding child care had been somewhat or very difficult and over half had changed work or school plans at some point because they could not find child care. Fully 83% of the parents had removed their child from a child care arrangement, often for reasons related to child care quality. In addition, two-thirds of the parents reported that a child care provider had complained about the needs or behavior of their child, and 59% of these parents had responded to the complaints by removing their child from the child care arrangement. Hence, the ECI has targeted a significant need for parents of young children with special needs.

Figure 6.6 illustrates the percentage of parents who received various types of assistance from a community agency (not just ECI-supported programs) when they were looking for child care. Consistent with the placement and technical assistance services offered by ECI, most parents received general information about child care, names of programs, and assistance with children's transitions to new child care programs. Many parents noted that the help they received was appropriate and sufficient. Several parents remarked that they would like some assurance that programs under consideration are capable of providing special needs child care and other parents expressed a desire for programs with specially trained providers.

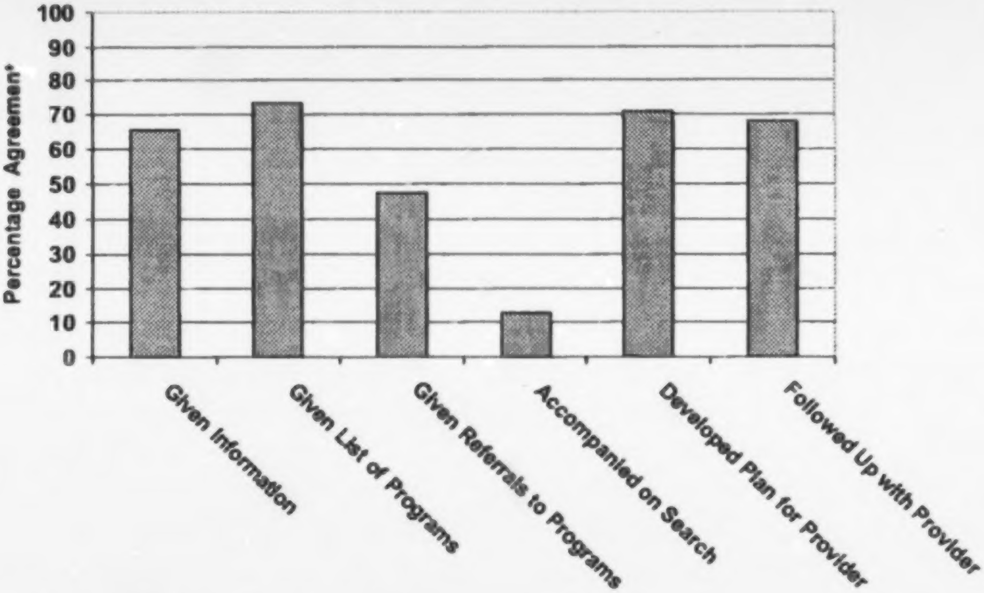

Figure 6.6 Assistance Parents Received (N=38)

Parents were generally pleased with both the TA provided on behalf of their child and the child care program where their child received TA. Table 6.14 summarizes parents' positive ratings of the technical assistance provided to them and their child care providers. Parents commented that the TA consultants exhibited empathy for their situation and worked hard to make the child care arrangements successful. Parents particularly appreciated TA that continued after the initial period of assistance and were grateful to have someone to talk with about issues concerning their child. Several parents gave high marks to the TA consultant, but found their child care provider unwilling to make the suggested changes. Less pleased parents wished their TA consultants had provided more assistance (e.g., earlier involvement, increased communication).

Table 6.14 Parent Rating of Agency that Provided TA (N=59)

Item[a]	Mean	Standard Deviation
Agency improved child care experience.	3.57	1.25
Agency had a positive effect on parent relationship with provider.	3.46	1.42
Agency helped parent learn about caring for child.	3.73	1.62
Agency kept parent informed about work related to child.	4.26	1.21

[a] Rated on a 5 point scale: 1=Strongly Disagree; 5=Strongly Agree

As illustrated in Table 6.15, parents were very satisfied with the child care programs where their child had received technical assistance. Eighty percent of the children remained in their child care program 6 months or longer, and 42% attended the program for more than 1 year.

There was no clear relationship between parents' work/school attendance and their child's placement in the child care program: two-thirds of the parents reported no change in attendance, 14% reported improved attendance, and 19% reported a decline. This finding may be attributed to the fact that work/school attendance is influenced by a variety of factors not examined in the study (e.g., parent health status, occupation characteristics).

Table 6.15 Parent Ratings of Center/FCCH Where Child Received TA (N=59)

Item[a]	Mean	Standard Deviation
Provider good at interacting with young children.	4.09	1.11
Provider handles discipline effectively.	3.80	1.28
Center provides child development information.	3.53	1.59
Parent feels welcome.	4.24	1.16
Child feels welcome.	4.14	1.26
Provider knows child well.	4.26	1.26

[a] Rated on a 5-point scale: 1= Strongly Disagree; 5=Strongly Agree

In sum, ECI special needs child care services provide much needed help to parents of children with special needs. Most parents received assistance in their search for child care including special needs child care information, referrals, and technical assistance during the transition period. This support proved sufficient for many parents though a number would have liked help identifying providers both willing and qualified to care for their children. Parents expressed satisfaction with the TA provided on behalf of their child and the child care program where their child received TA. TA was associated with high child care stability, with 80% of children remaining in the program at least 6 months. Parents judged TA to be successful when it took place with an interested and capable provider and was of sufficient intensity and duration given the parents', child's, and provider's needs.

Discussion

Three sources of data were used to evaluate the Special Needs Child Care Project. These included: (a) an administrative data set that documented the number and types of services provided through this project as well as the population of child care workers and children who were the recipients of these services, (b) a survey of supervisors from child care programs that had received training or technical assistance from this project, and (c) a survey of a sample of parents of children on whose behalf this project provided technical assistance. Overall, findings from these data indicated that this project has been effective at addressing many of the issues that were targeted by the logic model upon which this project was initially based. In the following we will highlight some of these findings.

First, *the Special Needs Child Care Project has been successful at reaching out to parents of children with special needs and at providing child care centers and providers with the training and technical assistance they need to more effectively serve this population of children.* Although the numbers reported from the administrative data set underestimate the full scope of activities conducted through the Special Needs Child Care Project, they still provide evidence that this project has successfully carried out a large amount of service activities on behalf of young children with special needs and their parents. More than 123 families received direct assistance in identifying and accessing appropriate child care for their children; more than 900 child care providers attended at least one workshop or training session on issues related to caring for this population of children; and technical assistance was provided to more than 750 child care workers on behalf of nearly 1000 children during the course of this project. These children had a range of special needs including medical, physical, developmental, and behavioral problems. These are the kinds of problems that often prevent children from gaining access to, and remaining in, appropriate child care placements.

The activities conducted through this project took place throughout all of Cuyahoga County, but were most heavily concentrated in the City of Cleveland where the needs for child care assistance are thought to be greatest. While the focus of these services was on child care centers, providers from more than 150 family child care homes were also recipients of services.

Second, *this project was effective at promoting stable placements for the children who were the direct recipients of service*. One of the primary goals of this project was to ensure that child care providers had sufficient information and technical skills so that they could retain children with special needs in their centers for 6 months or longer. Results from this evaluation indicated that this project successfully addressed this issue.

The parents surveyed for this evaluation indicated that before they received special needs child care services they had considerable difficulty not only identifying appropriate child care placements for their children but also keeping their children in these settings. Many parents reported that prior to receiving special needs child care services they had removed their child at least once from a child care placement because they were dissatisfied with the quality of care they were receiving. Two thirds of these parents received complaints from their child care workers about their children, and many of these parents were asked to remove their children from these placements.

However, a very different picture emerged when children were the recipients of special needs child care services. Data gathered by Starting Point on a sample of 180 children who received these services indicated that two-thirds remained in their placements at least 6 months and that their average length of placement was 13 months. After receiving special needs child care services, parents reported that 80% of their children were in their placements at least 6 months, while 42% were in their placements for 1 year or longer. Compared with the experiences parents reported prior to receiving special needs child care services, these data indicate that this project has been successful at addressing many of the concerns that had prevented children with special needs from experiencing stable child care placements.

Third, *the Special Needs Child Care Project is making substantial progress at improving the capacity of child care programs to care for children with special needs.* There are two sources of data that can be used to illustrate these gains. First, while parents found child care to be extremely challenging prior to receiving special needs child care services, they rated their child care experiences very positively after receiving special needs child care services. Not only did parents report that they themselves personally benefited from these services, but they felt that their child care workers welcomed their children, understood them, interacted effectively with them, and dealt well with their developmental and behavioral needs. This is in marked contrast to parents' attitudes about their child care providers prior to these services, when many expressed concerns about the way child care workers handled their children.

The second source of data that illustrates the positive impact this project had on the capacity of child care providers to care for children with special needs comes from the supervisor survey. Supervisors reported that the training and technical assistance provided through this project had a number of positive influences on their staff. These ranged from enhancing staff attitudes about working with children with special needs, helping staff acquire the skills needed to work with these children, and helping staff feel more comfortable with these children. Supervisors reported that they depended on the services provided through this project to help their staff care for children with special needs. If they were reluctant to include children with special needs in their center, they tended to attribute this partly to their not being able to obtain sufficient training and technical assistance to support this effort. In general, child care programs that received special needs child care services appeared to have a slight net increase in the number of children with special needs that they served during the past year. In some instances, these increases occurred because of the training and technical assistance these programs received from this project.

Fourth, *the Special Needs Child Care Project has made it easier for parents who are direct recipients of these services to access child care, although we cannot yet determine its impact on child care access for all parents of children with special needs*. The findings from the evaluation clearly indicate that this project is having a positive impact on parents of children with special needs, both in helping them access child care services and in ensuring that these services are appropriate for their children. Yet, at the same time, the parents we surveyed indicated that prior to receiving services from the Special Needs Child Care Project, they found it extremely difficult to access appropriate child care. Their positive experience with child care was directly related to the technical assistance that they and their children received from this project.

Although this project has served substantial numbers of children and families, the numbers served still represent only a portion of children with special needs in Cuyahoga County. However, the data trends from this evaluation point to the likelihood that progress will be made toward the goal of expanding special needs child care capacity as the project continues to be implemented during the next phase of the Early Childhood Initiative.

Conclusion

In general, results from this evaluation indicate that the Special Needs Child Care Project has been moderately successful at meeting many of the objectives that it set out to address. This multi-agency, multidimensional service program has impacted substantial numbers of children with special needs as well as numerous child care providers who work with these children. It is effectively helping these providers acquire the attitudes, skills and confidence they need to care for this population of children.

Yet, there are a number of concerns that remain to be addressed as this project moves into its next phase. First, a better understanding is needed of how this project is impacting the actual quality of children's experiences. While supervisors and parents report that this program has helped child care workers to address children's basic needs, the question remains whether this program is merely putting out the fires that undermine the success of children's placements, or whether it is meeting the ultimate objective of assuring that children's child care experiences are of sufficient quality to enhance children's development and social-emotional well-being.

An important issue related to this concern is the effectiveness with which early intervention services are being integrated into children's child care experiences. This evaluation did identify some information to indicate that early intervention and child care workers are collaborating with each other to maximize children's experiences in child care settings. However, at this time we have too little data to assure the reliability of this finding.

Second, there is a need to identify the gaps in child care for children with special needs that are not yet being addressed by this program. For example, this project has yet to impact a large number of family child care homes although this form of child care is preferred by some parents of children with special needs. This issue may need to be addressed by placing greater effort into coordinating the training opportunities offered through this project with the trainings that family child care providers are already mandated to receive. This project may also need to put more effort into informing family child care providers of the special needs child care services they are eligible to receive.

Third, a better understanding is needed of the differential impact that this project may be having on child care providers who have an educational background in early childhood education versus those who do not. One of the more interesting findings to emerge from this evaluation was related to the supervisors' perceptions regarding the role that formal educational background had on providers' ability to care for children with special needs. One possible interpretation of these findings is that the technical assistance provided through this project may be leading to successful outcomes primarily when the providers have a strong background in early childhood education. If follow-up studies show this to be the case, it might not only point out the obvious need for better prepared child care workers, but also for different types or intensity of special needs child care training and technical assistance that better match providers' levels of expertise in early childhood education.

Finally, a more reliable assessment is needed to document the amount of activities being implemented through the Special Needs Child Care Component. While there were large gaps in the administrative data collected at the outset of this project, we have been heartened by the collaborative efforts of Starting Point and each of the contracted agencies to improve the reliability and meaningfulness of this data set. After more than 2 years of working on this problem, there have been notable improvements in the number of consent forms collected, and we are approaching a point where the administrative data set provides a comprehensive picture of the service activities conducted through this project. Because of these improvements, a more complete accounting of the project's activities can be provided in future reports. In all likelihood, this will result in upward adjustments of our estimates of the scope and impact of this project. This improved database will also enhance the ability of the evaluators to draw more representative samples of participants for future survey studies.

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Appendix 6.1 Special Needs Child Care Component Agencies and Resources

Six Contracted Community-Based Agencies:

The Achievement Center for Children: Technical Assistance Program or TAP (ACC)

The TAP program serves families with children birth to age 12 who have disabilities. They provide three types of services to families and providers. First, a TAP consultant is available to help families locate child care. This involves contacting child care centers and/or family child care homes in order to identify a list of programs willing to take the child. Second, TAP consultants provide technical assistance to child care providers (both center-based and family child care homes). TA is linked to a specific child with special needs--often children TAP has helped place. TA visits are typically of short duration (e.g.,1 hour) and may occur one time only, or continue for as long as the provider and/or family feels they need assistance. Third, TAP conducts workshops on issues related to caring for children with disabilities.

Applewood Centers

Applewood provides TA and training to several child care centers in the County, primarily YMCA programs. Most of the centers Applewood serves include school-aged children as well as children under 6 years of age. Applewood consultants have regularly scheduled TA visits to centers and provide two types of services. They work with providers on general issues (e.g., classroom management) in order to improve the care for all the children at the center. They also work with providers to address behavior problems and mental health issues of individual children. Applewood conducts several workshops for YMCA staff, most of which address issues related to children with behavior problems and working with parents.

Beech Brook

Beech Brook provided special needs child care services during year 3 of the ECI. Beech Brook's TA is available to any center or family child care home in the County that has a child exhibiting a behavior problem. TA takes place with the provider and, if they are interested, the parents. The duration of TA depends on the needs of the child, provider, and parents. Beech Brook had not held any trainings at the time of this report, but they plan to hold trainings that link young children's mental health with the prevention of behavior problems.

Cuyahoga County Board of Health (CCBH)

CCBH assists child care providers who care for children with medical needs. TA begins with a Registered Nurse (and dietician if needed) meeting with the parent of a child who will be entering child care. The nurse collects information needed to develop a Nursing Care Plan (NCP) for the child. Once the child is placed in child care, the nurse makes a TA visit to the child care program (center-based or family child care home) to review the NCP with the providers. Follow-up TA visits take place as needed. CCBH conducts workshops on subjects related to children with medical conditions.

Hannah Perkins Center (HPC)

HPC provided special needs child care services during years 1 and 2 of the ECI. HPC serves children with special needs who are enrolled in pre-selected center-based child care programs. TA consists of providing on-going, long-term assistance to providers and families. Children served are typically those who have experienced some type of trauma in their lives (e.g., parental divorce).

Positive Education Program's Day Care Plus (PEP)

Day Care Plus was established in 1997 to address the problems of children at-risk for removal from child care centers due to behavior problems. An intensive program takes place in chosen centers around the County. During regularly scheduled visits, PEP consultants work with the staff on general child care issues with the goal of preventing the need for many child specific interventions as well as on child-specific issues if the situation warrants that approach. Day Care Plus also has a response team for working with non-intensive program site child care providers and children. PEP provides a number of on-site trainings and workshops.

Additional Agencies and Resources Associated with the Special Needs Child Care Component:

Interlink at Help Me Grow

Interlink at Help Me Grow has a staff person based at Starting Point who works closely with Starting Point and other community agencies to help families of children with special needs. Interlink at Help Me Grow assists families by encouraging early identification of children with special needs, providing information and referrals to services and programs such as Early Intervention and Early Start, providing service coordination for children with special needs, and assisting parents in their search for child care. Interlink at Help Me Grow also conducts workshops on issues related to young children with special needs.

Starting Point

Starting Point is the County's child care resource and referral agency. The agency is responsible for developing, administering, and managing the Special Needs Child Care Component. Starting Point oversees and coordinates the work of the community agencies providing direct service to parents and providers. In addition, Starting Point collects the administrative data from each of the contracted agencies and provides this information to the evaluators.

Resources Available to Agencies

Two types of libraries were established to supplement the agencies' efforts to support child care providers and families. Each of the agencies has a Resource Lending Library that is available to agency staff, child care providers, and parents. The libraries include books, manuals, videos, and pamphlets on a variety of topics related to children with special needs.

In addition, there is a Technical Equipment Lending Library. This library is managed by TAP, but the equipment is available for use by all of the agencies. The library has a variety of equipment such as adaptive toys for use by children with limited movement and touch screens for computers that can be used in place of keyboards. There is also a contract with a medical supply equipment company so child care providers can obtain the equipment they need for children with medical needs.

Appendix 6.2 Number of TA Visits and Children Served by Agency for each Quarter[a,b]

	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Q 12
Quarterly Visit Total										
ACC	5	2	10	20	34	51	53	66	144	89
Applewood	22	25	26	56	89	223	189	196	236	211
Beech Brook	0	0	0	0	0	0	0	0	0	5
CCBH	0	0	1	0	11	18	15	10	15	30
PEP	96	73	67	132	32	135	71	151	273	292
Total	123	100	104	208	166	427	328	423	668	627
Children Receiving TA										
ACC	3	2	2	4	18	17	34	34	81	59
Applewood	7	5	6	15	20	39	37	35	42	37
Beech Brook	0	0	0	0	0	0	0	0	0	3
CCBH	0	0	1	0	10	14	11	7	12	19
PEP	18	18	14	23	16	35	25	44	72	76
Total	28	25	23	42	64	105	107	120	207	194
***Newly* Served Children Receiving TA**										
ACC	3	2	1	2	13	11	25	18	55	27
Applewood	7	2	3	12	5	15	14	12	13	3
Beech Brook	0	0	0	0	0	0	0	0	0	3
CCBH	0	0	1	0	10	12	9	6	6	17
PEP	18	8	4	11	11	13	13	16	30	30
Total	28	12	9	25	39	51	61	52	104	80

[a] Q 3 (1/1/00-3/31/00); Q 4 (4/1/00-6/30/00); Q 5 (7/1/00-9/30/00); Q 6 (10/1/00-12/31/00); Q 7 (1/1/01-3/31/01); Q 8 (4/1/01-6/30/01); Q 9 (7/1/01-9/30/01); Q 10 (10/1/01-12/31/01); Q 11 (1/1/02-3/31/02).

[b] Although it appears that the number of visits and children served generally increased over the course of the ECI, this is largely an artifact of the increased number of children with consent forms. The table is best used by looking only at one quarter or by comparing quarters that have similar percentages of children in the Study Sample Database.

Source: Starting Point. Analysis of data by Center on Urban Poverty and Social Change.

Chapter 7
Healthy Start / Medicaid Expansion

Siran Koroukian, Kate Offutt, Engel Polousky, Rob Fischer, and Claudia Coulton

Chapter Summary

The Early Childhood Initiative, through the Healthy Start/Medicaid Component, seeks to promote and facilitate early and continuous coverage of eligible children under age six by public health insurance. Enrollment in Medicaid is expected to result in timely and regular use of health care services by children, and therefore to promote healthy development and reduce the use of inappropriate and/or unnecessary care. Areas examined in this chapter include:

- Outreach activities: referral sources, points of application, and rates of approval for applications submitted to the Cuyahoga Health & Nutrition
- Patterns of enrollment and disenrollment of children in and out of the Medicaid program: age at initial enrollment in Medicaid and duration of initial spell
- Trends in utilization of health services among children born before and after the implementation of the ECI program, including use of first comprehensive preventive visit (age at first visit, and number of visits in the first year of life); and use of Emergency Department services

Data were compiled from the 1998-2002 Cuyahoga Health & Nutrition administrative records; monthly files extracted from the Client Registry Information System – Enhanced (CRIS-E); and Medicaid fee-for-service claims and managed care encounter data obtained from the Ohio Department of Job and Family Services. Findings include:

- *Outreach Activities*: The Hotline remained the largest source of Healthy Start applications until March of 2001. The intake sites with the highest proportions of approved applications were MetroHealth Medical Center and University Hospitals of Cleveland.
- *Patterns of enrollment and disenrollment in and out of the Medicaid program*: Children in later birth cohorts tended to enroll in Medicaid at a younger age and remain enrolled in Medicaid for longer periods of time than those in earlier birth cohorts. The proportion of children enrolled in Medicaid as of the first month of life increased from 51.6% among those in the January 98-June 98 birth cohort, to 63.8% among the January 01-June 01 birth cohort, whereas the proportion of children disenrolling from Medicaid within 13 months following initial enrollment decreased from 36.1% among children of the January 98- June 98 cohort to 24.7% among those in the July 00-December 00 cohort.
- *Trends in utilization of health services*: The trend over time in initiating comprehensive preventive visits (CPV) at an earlier age was favorable. The proportion of children receiving their first CPV by 1 month of age increased from 30.1% in 1998 to 42.8% in 2001. The proportion of children not receiving a CPV by 3 months of age decreased from 49.5% to 32.3% during that time period. Similarly, the proportion of children not receiving any CPV by their first birthday decreased from 22.3% in 1998 to 12.1% in 2000, and the proportion of children receiving at least 5 CPVs by their first birthday increased from 10.6% to 20.9% during the same time period. However, consistent with other studies analyzing the effects of Medicaid expansion on health care utilization, no notable changes occurred in the use of Emergency Department visits over time.

Introduction

The Early Childhood Initiative (ECI) is a comprehensive, community-wide approach to support Cuyahoga County's young children and their families, including expanding access to health insurance and health care for all children in poor and low-income working families. Cuyahoga Health & Nutrition (CHN) is the principal agent in this effort.[1] Through a variety of outreach and information dissemination activities, CHN enrolls eligible children in Medicaid programs for which they are eligible. Medicaid covers well child-care, as well as acute and chronic health services through participating Medicaid Managed Care programs.

Health insurance coverage, by reducing financial barriers, is believed to lead to increased access to health care services. In low-income families, early and continuous enrollment in Medicaid is expected to result in timely and regular use of health care services, which is key to healthy development and to the reduction of inappropriate and/or unnecessary care. The detrimental effects of gaps in health insurance on having a regular source of care (i.e., a medical home) have been well documented, and continuous Medicaid coverage has been proposed as a quality measure in evaluating Medicaid managed care programs (Cooper & Kuhlthau, 2001). Children experiencing gaps in health insurance coverage for longer than 6 months are at least 50% more likely than others to have more than one site for medical care (Kogan, Alexander, Teitelbaum, Kotelchuck, & Pappas, 1995). In addition, lower continuity of care is associated with increased use of emergency department services and hospitalization (Christakis, Mell, Koepsell, Zimmerman, & Connell, 2001). Also, continuity with a clinician is more important than continuity with a health care site in reducing the likelihood of future hospitalization (Mainous, & Gill, 1998). It has been shown, however, that the probability of remaining covered by Medicaid for 28 months among new enrollees 16 years of age or younger is only 20%, indicating that a minority of individuals remain continuously enrolled in Medicaid for over 2 years. Furthermore, for those losing Medicaid coverage 61% had health insurance 4 months after disenrolling (Carrasquillo, Himmelstein, Woolhandler, & Bor, 1998), which suggests that nearly 40% of individuals become uninsured soon after leaving Medicaid.

The Medicaid program has expanded significantly since 1997, with the implementation of the State Child Health Insurance (SCHIP) program, to provide coverage to children up to 200% of the Federal Poverty Level. Findings from the evaluation of this program in the state of New York have shown increased access to and utilization of primary care, improved continuity of care, and improved health status among participating children. However, utilization of emergency and specialty care were unchanged (Holl et al., 2000). These improvements were associated with only a modest increase in expenditures (Zwanziger et al., 2000). However, critics have argued that merely providing insurance coverage (public or private) is not sufficient to ensure access to care (Rosenbach, Irvin, & Coulam, 1999). Additional factors are likely to account for the availability of a medical home, and for the effects of gaps in insurance coverage.

Expanded availability of primary care physicians, coupled with various approaches in case management, has been shown to be associated with decreased use of Emergency Department (ED) visits and pediatric hospitalizations, although such favorable outcomes have not been consistent across studies (Piehl, Clemens, & Joines, 2000; Gadomski, Jenkins, &

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[1] Note: CHN merged with Cuyahoga Work and Training to form Cuyahoga County Employment & Family Services, in 2002. Throughout this report, the agency is referred to as CHN.

Nichols, 1998; Schuster et al., 1998). In 1990, the lack of a primary care provider was cited as a reason for more than 40% of non-urgent visits to the ED, nationwide (U.S. GAO, 1993). Interventions in pediatric EDs, consisting of educating parents on the importance of a primary care provider and assisting them in making an appointment to the provider of their choice, have resulted in a decrease of subsequent ED use, with potentially modest savings to the Medicaid program (Grossman, Rich, & Johnson, 1998). While these are utilization and process measures, they have often been used as proxies for outcomes, because such encounters could be prevented through adequate receipt of ambulatory care (Palmer & Miller, 2001).

The planned research and evaluation of the ECI and Healthy Start/Medicaid expansion has three components:

(1) A brief description of the Healthy Start/Medicaid outreach activities.
(2) A study of Healthy Start/Medicaid expansion trends and patterns for children five years of age and younger;
(3) An analysis of service utilization, including well-child care, and visits to the emergency department.

The evaluation research on these components adds to our understanding of the degree to which the various outreach activities can achieve the Initiative's goals:

(1) Increase participation of young children in the Medicaid program;
(2) Decrease discontinuity in their enrollment in Medicaid; and,
(3) Ensure early and sustained contact of children with the health care system.

Program Description and Implementation

Several State, Federal, and County-level policies and initiatives have affected Medicaid enrollment for children and their families. See the Chronology for program implementation depicted in Figure 7.1 for relevant policy changes impacting this Component of the ECI. For a fuller discussion of the systems and policy context for ECI, please refer to Chapter 8 of this report.

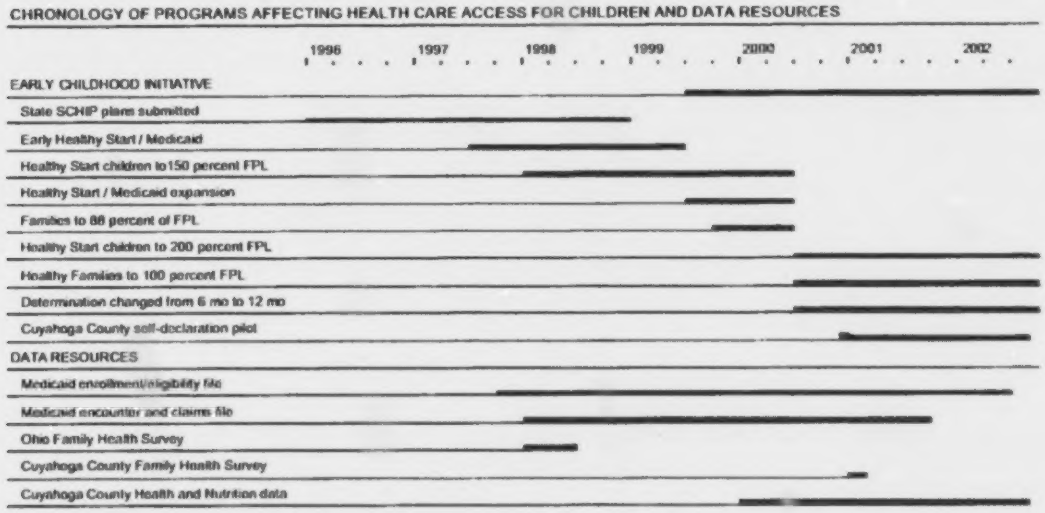

Figure 7.1 Chronology of Programs Affecting Health Care Access for Children and Data Resources

The Balanced Budget Act (BBA) of 1997 amended the Social Security Act, to include Title XXI, the State Children's Health Insurance Program (SCHIP), a program designed to provide increased access to health care for children in families with income too high to qualify for Medicaid (Title XIX) but too low to afford private coverage. Under SCHIP, states may a) expand Medicaid to include children in families with incomes higher than those served by their Medicaid program; b) create a separate State program; or c) create a program that combines the two. The State of Ohio opted for the expansion of the Medicaid program and to provide coverage to uninsured children of families with incomes at or below 200% of the poverty line (Ohio Department of Job and Family Services, n.d.). In January 1998, under the State Children's Health Insurance Program (SCHIP), known as "Healthy Start" in Ohio, children up to age 19 and living in families with incomes below 150% of the federal poverty level (FPL) became eligible for comprehensive health care. Again, in July 2000, the state expanded eligibility for children, this time increasing families' income limits to 200% of the FPL. Adults in households with children were also covered up to 100% of the FPL. Also, during this period, the Medicaid redetermination cycle (i.e., the point at which families must provide evidence of their continued eligibility for services) increased from 6 months to 1 year in an effort to maintain continuity of coverage. These events, along with data availability, are depicted in the above timeline.

Results from the 1998 Ohio Family Health Survey (OFHS) showed that many uninsured adults and children in Cuyahoga County were eligible for either Healthy Start or Medicaid. Since then, a number of concurrent activities and events have influenced enrollment trends and substantially reduced the number of uninsured children in Cuyahoga County. Cuyahoga Health & Nutrition launched major marketing and outreach efforts to enroll eligible residents and retain those already enrolled. In addition, the County's ECI program, which began in July 1999, may have also increased enrollment in existing insurance programs by providing early contact with

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young families to explain the importance of regular health care for children and the availability of insurance programs. The formerly robust economy, which helped workers secure jobs with better benefits, including health insurance, may also have accounted for some of the improvement.

Evaluation Design / Methods and Data Sources

Program and Its Logic:

The Healthy Start/Medicaid program implemented through Cuyahoga Health & Nutrition is designed to reduce the number of uninsured low-income children and assure that children have access to medical care. Through a variety of outreach and information dissemination activities, the Healthy Start/Medicaid program enrolls low-income families, pregnant women, and children who meet eligibility criteria in one of several Medicaid programs. Those who qualify can receive well-child, acute, and chronic health services through participating health maintenance organizations (HMOs).

The program logic of Healthy Start/Medicaid appears in Figure 7.2. The success of the program rests upon informing parents of eligible children of their eligibility and making it possible for them to enroll and stay in the program. Once children are enrolled, their parents select an HMO, from which they then select primary care providers. This enables families to acquire appropriate and adequate well-child care, immunizations, sick care, and other services necessary and standard for their child's age.

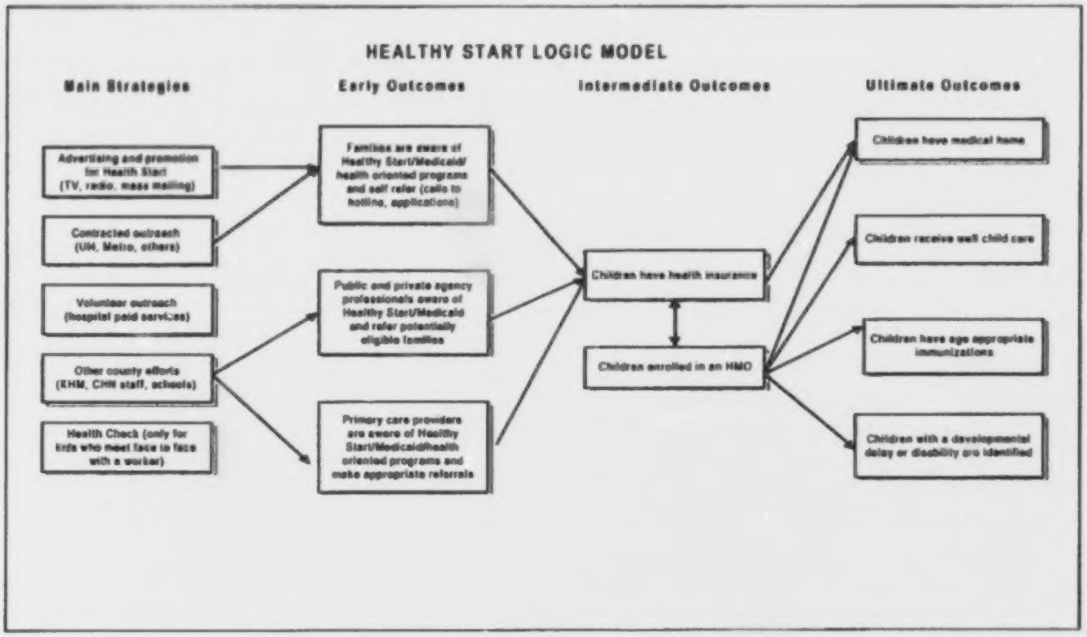
HEALTHY START LOGIC MODEL
Main Strategies
Early Outcomes
Intermediate Outcomes
Ultimate Outcomes
Advertising and promotion for Health Start (TV, radio, mass mailing)
Contracted outreach (UH, Metro, others)
Volunteer outreach (hospital paid services)
Other county efforts (KHM, CHN staff, schools)
Health Check (only for kids who meet face to face with a worker)
Families are aware of Healthy Start/Medicaid/ health oriented programs and self refer (calls to hotline, applications)
Public and private agency professionals aware of Healthy Start/Medicaid and refer potentially eligible families
Primary care providers are aware of Healthy Start/Medicaid/health oriented programs and make appropriate referrals
Children have health insurance
Children enrolled in an HMO
Children have medical home
Children receive well child care
Children have age appropriate immunizations
Children with a developmental delay or disability are identified

Figure 7.2 ECI Healthy Start Logic Model

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Data Sources:

Data for this evaluation Component come from several sources:

- Cuyahoga Health & Nutrition (CHN) administrative records
- Medicaid enrollment records from Ohio's Client Registry Information System – Enhanced (CRIS-E) database
- Medicaid claims and encounter records, both from the Ohio Department of Job and Family Services (ODJFS)

Information on outreach strategies and activities were obtained from the staff at CHN. Agency records were used to describe the interactions and activities of CHN with potential Medicaid recipients. Applications received by CHN were tracked according to the source that provided, referred or helped the applicant complete the application. Therefore, the source of the applications and the proportion approved by source provide insight into the breath of outreach activities. To further understand the influence of outreach efforts, the person inquiring about Medicaid through the hotline (a major source of applications) were asked about how they heard about the hotline and Medicaid. Through these two data sources, an insight into the complex process of enrolling a family in Medicaid is demonstrated. Future evaluation activities/analyses could include interviewing selected staff to determine which methods of outreach have been most successful and which aspects of outreach strategies might be improved.

The study of enrollment trends and patterns utilizes data on Healthy Start/Medicaid enrollees 5 years of age or younger from computerized records maintained by the ODJFS in CRIS-E files. These files, which are updated on a monthly basis, are used to develop longitudinal databases summarizing the children's enrollment history on a monthly basis, and carrying information about them and their families' participation in other welfare programs. Pertinent information is extracted from these longitudinal records, including number of Medicaid enrollment spells, age at first enrollment in Medicaid, length of enrollment and disenrollment spells, and length of gaps between enrollment spells.

Data on utilization of health services by children enrolled in the Healthy Start/Medicaid program were obtained from claims and encounter files provided by the ODJFS. Claim records are billing records generated in the fee-for-service (FFS) system for services paid by the Ohio Medicaid program directly to the provider. Encounter data are pseudo- or shadow- claims generated by the Managed Care Organization (MCO) to account for services rendered to a beneficiary while the individual was enrolled in their system. While variations in the content and quality of encounter data may occur, it is generally believed that encounter data mirror claim records in format, content, completeness, and quality. In order to obtain a complete claims history and to account for possible lapses in MCO enrollment that may have occurred during the study period, claim records and encounter data were combined in the process of summarizing children's utilization experiences.

The claim and encounter records carry diagnosis and procedure codes that make it possible to identify respectively the conditions that prompted a given health encounter, as well as the types of service received. These codes were used to summarize children's health care utilization at the individual level to derive measures of receipt of comprehensive preventive visits (also referred to as well-child care); and visits to the Emergency Department (ED). Diagnosis and procedure codes used to identify these services are listed in Appendix 7.1.

As noted below, the analysis presented in this report focuses on reporting the utilization experience of healthy children residing in Cuyahoga County, and excludes data for children with special health care needs that tend to have personalized health care regimens not reflective of care for generally healthy children. The cohort of healthy children was identified after excluding children with a length of stay of more than 6 days following birth -- a criterion used as a proxy to identify children with poor birth outcomes – and children with diagnoses consistent with specific high-use medical conditions (e.g., asthma, diabetes, epilepsy).

Previous reports on the ECI presented results from the Ohio Family Health Survey (OFHS), conducted in 1998 by the Gallup Organization for the Ohio Department of Health, and the Cuyahoga Family Health Survey, conducted in 2001 (Weiner & Coulton, 2001). Planning is underway to repeat the survey again in 2004, in order to assess the level of health insurance coverage among children in Cuyahoga County. Results from the 1998 and the 2001 Cuyahoga Family Health Survey had indicated that the proportion of uninsured children in Cuyahoga County had decreased from 10.5% to 2.1% (90% confidence intervals were 5.6-15.3% for 1998 and 0-4.5% for 2001).

Analysis:

This report presents initial data summarizing the enrollment history and utilization experience of children 5 years of age or younger, residing in Cuyahoga County. As detailed in Figure 7.3, the results are presented for birth cohorts. For this analysis, birth cohorts are identified in 6-month intervals, starting January 1998, and comparisons are made in the experiences of children enrolled in Medicaid from the pre-ECI period (January 1998 through June 1999) to the ECI periods (July 1999 through June 2002). For measures involving a 12 month follow-up period, analyses were limited to birth cohorts starting July 2000 (whose oldest member reached the age of 1 before January 1, 2002).

The research design is based on the premise that cumulative exposure to ECI activities and programs should positively affect health care-seeking behavior and appropriate utilization. Early birth cohorts will have minimal or no exposure to the ECI influence, but each successive birth cohort will have more exposure, until children born in 2000 and after will have full program exposure. Data for the first 6 years of life (5 years of age and younger) for the 1998 birth cohort will not be available until 2006 (accounting for claim lag), so our analyses must rely on less than the full 6 years of data. Nonetheless, analysis of several years should provide valuable insights into the health care utilization by young Medicaid patients and inferences about the effects of ECI.

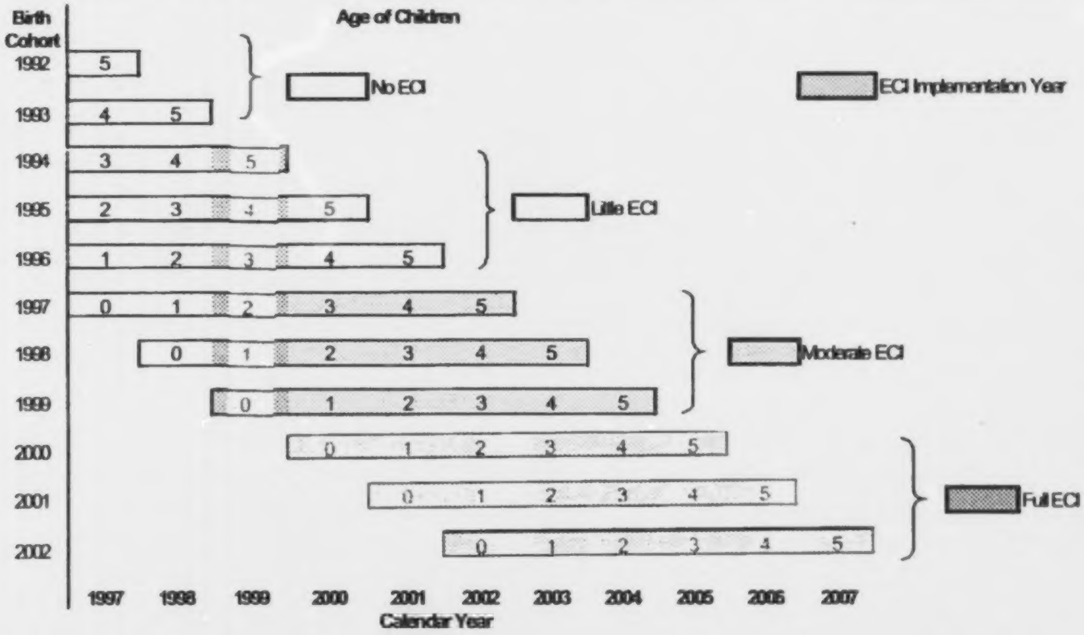

Figure 7.3 ECI Birth Cohorts

The following are specific research questions addressed in this report:

- What are the most frequently used referral sources and points of intake for application to Medicaid ?
- What are the rates of approval for applications submitted to the County?
- Are children enrolling in Medicaid at an earlier age?
- Are enrolled children remaining insured and experiencing fewer gaps in enrollment?
- Are children receiving their comprehensive preventive visits at an earlier age?
- What proportion of enrolled children adheres to the American Academy of Pediatrics-recommended schedule of comprehensive preventive visits?
- Have emergency visits declined?

Methodological Considerations:

Due to the nature of the Medicaid program, and the dynamic aspect of the study cohorts, the analysis required the consideration of several methodological approaches. These considerations are detailed below:

- The Medicaid program is known for its dynamic nature, with individuals enrolling in and disenrolling out of the program. The analysis of such data required the use of statistical techniques that could properly account for timing of events (such as age at enrollment in Medicaid), and duration of enrollment (length of enrollment spells).

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- The study population in the analyses presented in this chapter included only children enrolled in the Medicaid program, and the number of children enrolled in Medicaid served as denominators to derive various measures. Therefore, children who may have been eligible for Medicaid but not enrolled in the program were not accounted for in these analyses.
- Utilization experience is expected to differ between healthy children and those with special health care needs. Therefore, only children without major health concerns were studied in this report. Including all children could produce results that do not reflect well the experiences of either group. Furthermore, the American Academy of Pediatrics schedule of comprehensive preventive visits, which was used in these analyses, applies only to children without major health conditions. Future analyses will focus on the experiences of children with special health care needs.
- Initially, the following research questions were to be addressed through these analyses. For reasons described below, these questions are not examined in the present report:
    - *Are children in the program receiving their immunization on the recommended schedules after enrollment?* Immunization rates are a very important quality indicator. However, serious under-reporting of immunization data in FFS claims has been noted in the past, mainly because Maternal and Child Health Clinics have been providing immunizations free of charge. Under-reporting of immunizations is likely to also exist in MCO encounter data. Services with no documented billing transactions cannot be accounted for in the analysis, and administrative data cannot be considered a reliable source of data to assess the adequacy of receipt of childhood vaccines in the study population. It is noteworthy, however, that findings from the Ohio Department of Health Retrospective Surveys showed a steady increase in the rates of immunization, both for the City of Cleveland, as well as for the suburbs, although a significant gap between the two populations persists. The rates for the 4:3:1 immunization series, which is to be completed by the child's second birthday, increased from 36% in 1992 to 53% in 2000 for residents of the City of Cleveland, and from 54% to 81% for residents of the suburbs.
    - *Are children seeking primary care in office settings appropriately, that is, to be treated for medical conditions not necessitating the use of Emergency Department?* This analysis could be performed after deriving measures of utilization of primary care services in office settings. Consideration of this issue will be explored in future reports.
    - *Are children enrolled in Medicaid remaining in the same HMO?* This analysis will be performed once the summary utilization measures are derived. Results will be incorporated in future reports.
    - *Are children keeping the same providers over the study period?* This analysis may not be feasible, given the limitations of the administrative data. Such limitations are known to be present in traditional fee-for-service (FFS) claims, and may well be present in MCO encounter data. In FFS claims, the provider may be a large clinic, and it may not be possible to discern between the individual provider rendering care during a particular encounter and the clinic. Also, while the same individual provider may be rendering care to a given child, it is possible

that the group provider identification number (ID) would appear in one claim, and the individual provider ID in another claim, leading to the spurious conclusion that the patient had been cared for by two different providers. Unfortunately, such issues could not be addressed in these analyses, even with the use of the ODJFS Provider Master File, given a lack of completeness and specificity in that database. The same difficulties in identifying a medical home could also be encountered in MCO data, and the extent to which these coding issues would bias the results is not known.

Research Findings

Findings from the evaluation are organized under three domains: data on applications to Medicaid, data on Medicaid enrollment, and data on healthcare utilization.

Applications Received And Approval Status By Source Of Application:

The following section summarizes marketing and outreach activities and enrollment practices that were adopted by Cuyahoga Health and Nutrition over the first 3 years of the ECI:

- Adopting and promoting "Healthy Start" brand name
  - Developing descriptive brochure, table top promotional display, bus placards, give-aways (e.g., lanyards, water bottles, magnets), and a fact sheet, all displaying the Healthy Start logo and contact information
  - Using CHN Kids Healthmobile to target school, neighborhood, and community functions, such as health fairs and neighborhood festivals
- School-Based Outreach
  - Dedicating an employee to target preschool-aged children through Child Care Centers, Head Start Programs, and Starting Point often with mailings to parents
  - Working with school systems, often to develop collaborative and interactive relationships
- Mailing and Cross-selling
  - Encouraging applicants to any public benefit program to apply for "Healthy Start"
  - Mailings to people receiving other types of child services or public benefits such as, Women, Infant and Children (WIC), Child Support, Unemployment
- Advertising campaign with paid radio and television advertising
- Contracting with various organizations (such as MetroHealth Medical Center, University Hospitals and Cleveland Municipal School District) to promote Healthy Start and submit completed applications (discontinued in June 2002 due to loss of State funding)
- Benefiting from ECI public awareness campaign
  - ECI marketing and communications strategies included information on Healthy Start and the Hotline
  - Distribution of material through in-home visits in the Welcome Home and Early Start programs
- Enrollment and application Hotline

- Developing the capacity to take applications, and provide application assistance, over the phone.
- Hotline operated seven days per week, twelve hours per day.

Figure 7.4 presents the volume of Healthy Start applications by source and month, January 2000 through July 2002. The volume fluctuated somewhat during the study period, with a sharp increase during October of 2000, possibly coinciding with timing of increased number of families reaching the Temporary Assistance for Needy Families (TANF) time limits. The Hotline appeared to be the largest source of Healthy Start Applications, with an average of 35% of the applications originating through this venue.

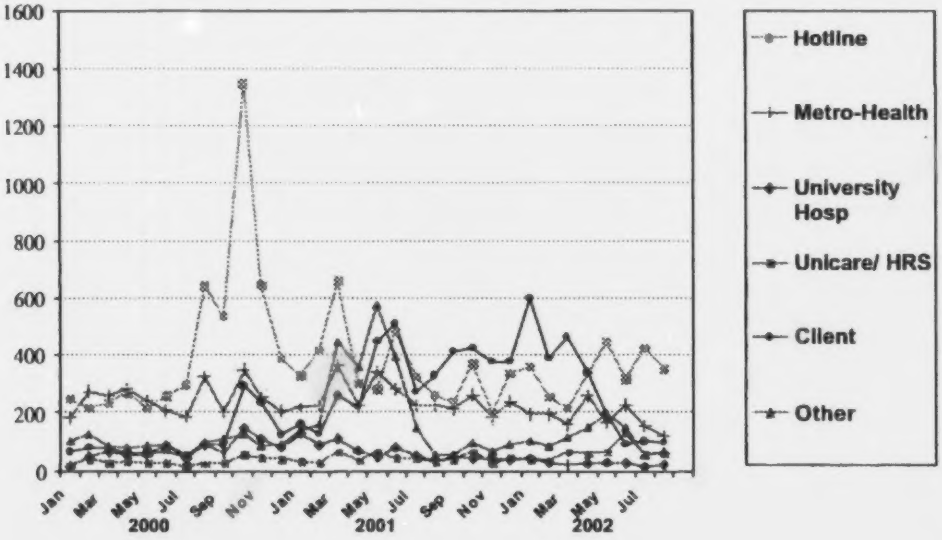
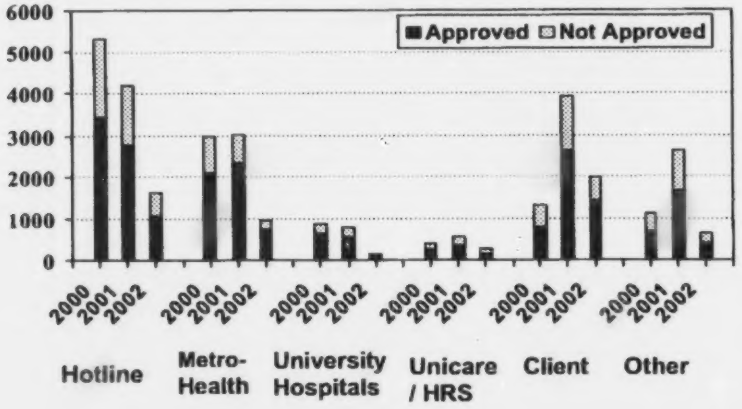


Figure 7.4 Healthy Start Applications Received by Source and Month (January 2000 through April 2002)



Note: 2002 data reflects only a 5 month period.

Figure 7.5 Number of Applications by Approval Status and Source, (2000, 2001, and January-May 2002)

Figures 7.5 and 7.6 present the volume of applications by source, as well as by approval status. Approval rates of applications were comparable across the different sources, with slightly higher rates of applications originating from MetroHealth (75%) and the University Hospitals (73%).

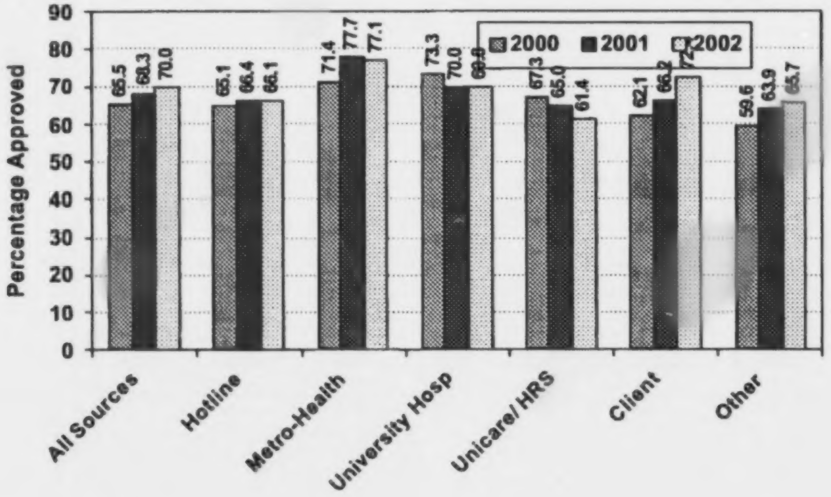


Figure 7.6 Percent of Applications Approved by Source, (2000, 2001, and January-May 2002)

Figure 7.7 presents the volume of calls received by the Hotline for each month from January 2000 to July 2002. The hotline received 77,543 calls during that time period and mailed out over 25,191 applications from May 2000 to July 2002. Many of these applications were begun over the phone with Hotline staff, so that all that was needed was the applicants' signature to complete the application.

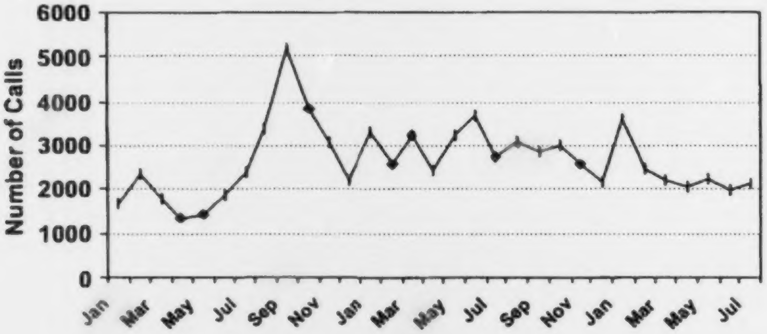
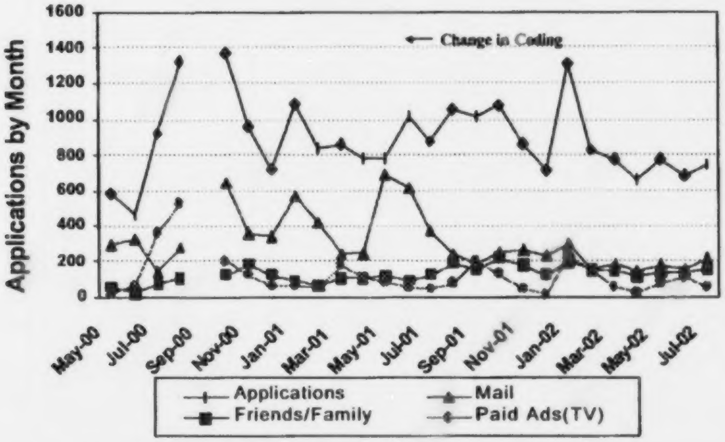


Figure 7.7 Healthy Start Hotline Calls Received by Month (January 2000 through July 2002)

Figure 7.8 presents the number of applications mailed out to potential clients and how the callers heard about the hotline. Callers to the hotline were most likely to hear about it because they received a mailing. The next two most common sources of referral were from friends or family and paid advertising (primarily an advertisement on television). Referrals linked to mailings and paid advertising fluctuated during the period.



Notes: Data for September 2000 are unavailable.
Data for May and June of 2000 may be incomplete.

Figure 7.8 Healthy Start Applications Mailed from Hotline by Source, May 2000 to July 2002

It is important to note that applicants may have been exposed to more than one outreach effort. Further, given a change in the coding of methods of outreach in the application in July 2001, the categories of outreach may not be consistent over the study period.

Enrollment of Children in the Medicaid Program:

Figure 7.9 shows the number of enrollees in each of the eligibility categories of Ohio Works First/Low Income Families (OWF/LIF), Transitional Medicaid, and Healthy Start. Children enrolled in Medicaid through the OWF/LIF program receive Medicaid benefits, and OWF children also receive cash assistance. Incomes of families receiving OWF benefits are usually below 70% of the Federal Poverty level (FPL), and that of families in the LIF program range between 70 and 90% of the FPL. Transitional Medicaid provides families previously enrolled in the OWF/LIF program Medicaid benefits, without cash assistance, for up to 12 months. These are families that no longer qualify for the OWF/LIF program, due to an increase in their income. The Healthy Start program provides health care coverage for pregnant women with incomes up to 150% of the FPL, and for children up to age 19 with incomes up to 200% of the FPL. The data for the period July 1998-June 2002 cover a 12 month interval of pre-ECI, and three 12 month intervals following the implementation of ECI. With regard to the OWF/LIF program, enrollment decreased slightly in the pre-ECI period, but increased steadily beginning with the second interval in the post-ECI period. Enrollment in the Healthy Start program increased steadily through the study period. No changes in enrollment in Transitional Medicaid were observed during that period.

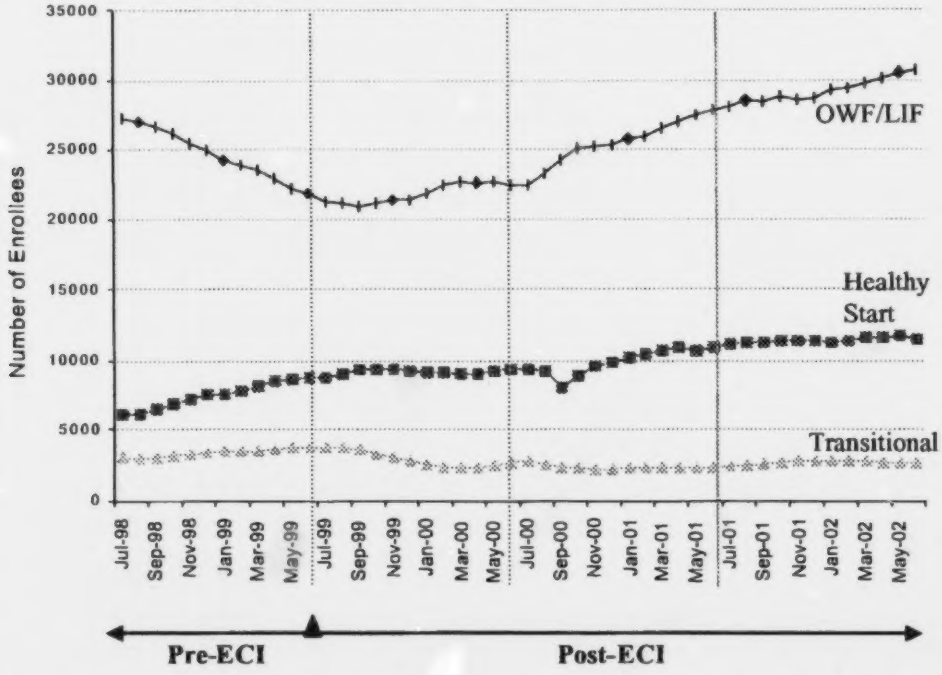


Figure 7.9 Monthly Medicaid Enrollment, Pre- and Post- ECI (June 1998 – June 2002)

Population Profile

The study population included 46,762 children residing in Cuyahoga County, enrolled in Medicaid and born between January 1998, and June 2002. Eligibility category reflects the family's income level. By definition, enrollees of the Healthy Start program have higher incomes than those of the OWF/LIF program. Although enrollees could potentially qualify for more than one eligibility category, an algorithm was developed to select a primary category.

Approximately 58% of enrollees were African American, and one third were enrolled in the Healthy Start program. As indicated in Figure 7.10, 76% of African Americans and 50% of Caucasians were enrolled in the OWF/LIF program. In regard to the race of children enrolled in the Healthy Start program, 22% were African American and 40% were Caucasian.

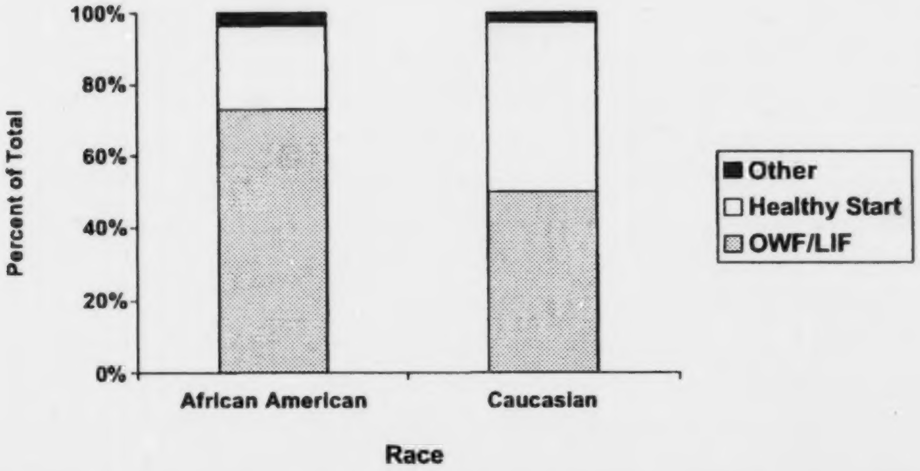


Figure 7.10 Study Population Profile – Distribution of Children by Race and Eligibility Category

Medicaid Enrollment Spells

Gaps in insurance coverage hinder access to care, and children who are continuously insured are more likely to have a medical home and receive appropriate and timely care. The objective of the ECI is to promote and facilitate early and sustained contact with the health care system, and hence the interest in monitoring patterns of enrollment into and disenrollment out of the Medicaid program. Several measures were developed to analyze early and continued enrollment in Medicaid:

- Early enrollment in Medicaid was evaluated by analyzing age at initial enrollment in Medicaid. We used survival analysis to analyze changes in the age at enrollment in Medicaid across birth cohorts. In addition, we calculated the proportion of infants enrolling in Medicaid before one month of age, among enrollees one year of age or younger, so that cohorts are comparable.

- Continued enrollment in Medicaid was assessed by analyzing the length of the initial enrollment spell. In this case, survival analysis with censoring was used to compare spell duration across birth cohorts. We also calculated the proportion of children disenrolling from Medicaid within the 13 months following initial enrollment. The choice of 13 months, rather than 12 months, was to account for eligibility re-determination at 12 months. In this study, Medicaid spell length is defined as the number of consecutive months of enrollment. In order to account for possible difficulties in logistics, a gap of only one month in enrollment history is not counted as disenrollment. The duration of initial spell is calculated using survival analysis, with right censoring, a statistical technique used to account for the enrollment spells being initiated throughout the study period, and for spells that may remain open as of June 2002, the last month for the examined study period.

Early Enrollment:

One of the desired effects of ECI, especially that of its Welcome Home Component is enrollment of eligible children in Medicaid at an early age. The results from the survival analysis indicated that children in later birth cohorts were enrolled at a younger age than those in earlier birth cohorts, and these trends were statistically significant ($p < 0.001$). Furthermore, the proportion of children enrolled in Medicaid as of one month of age was approximately 51.6% among those in the January 98-June 98 birth cohort, compared to 63.8% among the January 01-June 01 cohort (Figure 7.11).

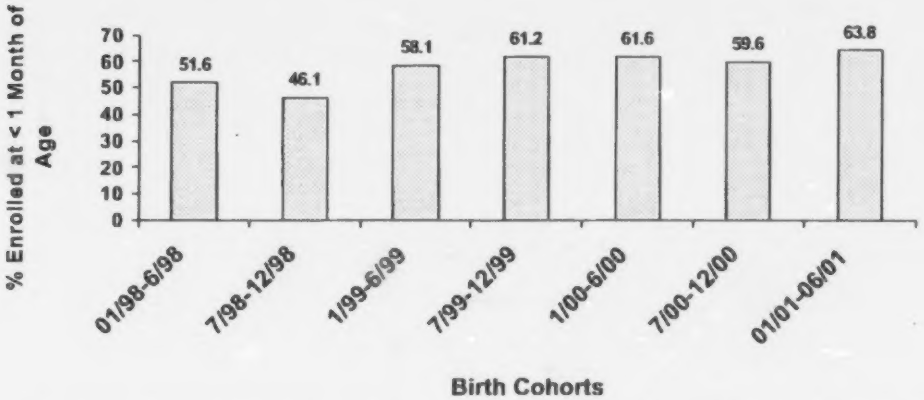


Figure 7.11 Proportion of Infants Enrolled in Medicaid at <1 Month of Age, by Birth Cohort (Analysis Limited to Infants <12 Months of Age)

Compared to children enrolled in the Healthy Start program, a greater proportion of children in the OWF/LIF program enrolled prior to one month of age. This gap appears to have persisted across the study cohorts (Figure 7.12). One plausible explanation is that OWF/LIF mothers may be more likely than Healthy Start mothers to have been enrolled in Medicaid during pregnancy (R. Staib, Cuyahoga Health and Nutrition, personal communication, October, 2002). Future studies should examine these patterns in relation to the mother's pre-delivery history of enrollment in Medicaid.

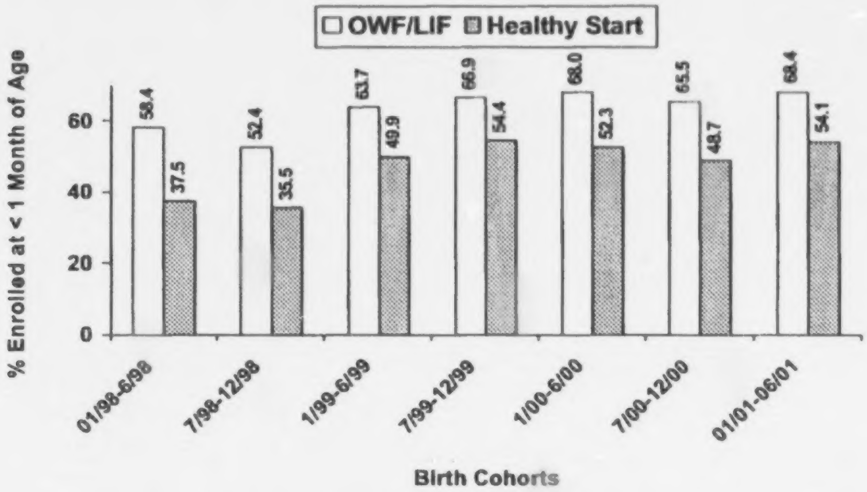


Figure 7.12 Proportion of Infants Enrolled in Medicaid at <1 Month of Age, by Birth Cohort and Eligibility Category (Analysis Limited to Infants <12 Months of Age)

Continued Enrollment in Medicaid:

As shown in Figure 7.13, children in later birth cohorts were more likely to experience initial Medicaid spells of longer lengths than those in earlier birth cohorts, and these trends were statistically significant ($p < 0.001$).

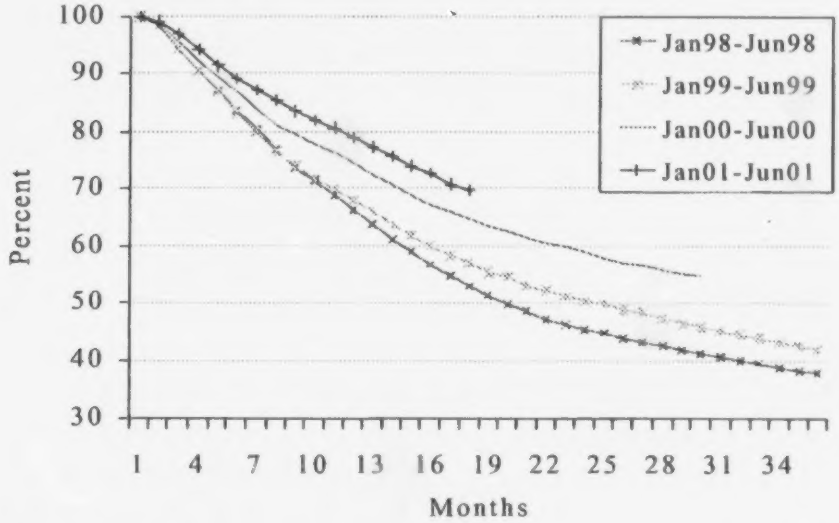


Figure 7.13 Medicaid Enrollment Survival Analysis

Table 7.1 shows the proportion of children remaining enrolled in Medicaid for a specified duration after their initial enrollment.

Table 7.1 Proportion of Children by Birth Cohort and Length of Spell at Initial Enrollment

	Birth Cohorts							
Spell Length (Months)	**01/98-06/98**	**07/98-12/98**	**01/99-06/99**	**07/99-12/99**	**01/00-06/00**	**07/00-12/00**	**01/01-06/01**	**07/01-12/01**
3	94.2	94.7	94.5	95.3	95.6	96.1	96.9	96.8
6	83.7	84.1	83.4	85.0	86.9	88.4	89.2	90.1
9	73.7	73.5	73.9	75.9	79.6	82.2	83.6	
12	66.2	65.9	67.9	69.6	74.3	76.9	78.9	
15	59.1	58.7	61.8	64.1	68.8	71.9		
18	53.0	54.3	56.9	60.3	64.8	67.7		
24	45.4	47.7	50.3	54.2	59.1			
30	41.2	43.2	45.9	49.7				
36	37.8	39.7	42.0					

Whereas the proportion of children still enrolled in Medicaid 3 months after initial enrollment did not increase substantially from the first to the last birth cohort, the proportion of children remaining enrolled in Medicaid at 6 months after initial enrollment increased from 84% in the January 98-June 98 cohort to 90% in the July 2001 - December 2001 cohort. For children remained enrolled at least 18 months, the proportion of children increased from 53% among children in the first birth cohort to 68% among those in the July 2000 to December 2000 cohort. For those remaining enrolled for 24 months upon initial enrollment, these proportions were 45% in the first cohort, and 59% in the January 2000-June 2000 birth cohort.

Additional analyses showed that the proportion of children disenrolling from Medicaid within 13 months of initial enrollment decreased significantly from 36.1% among children in the earliest study cohort to 24.7% in the July – December 2000 cohort (Figure 7.14).

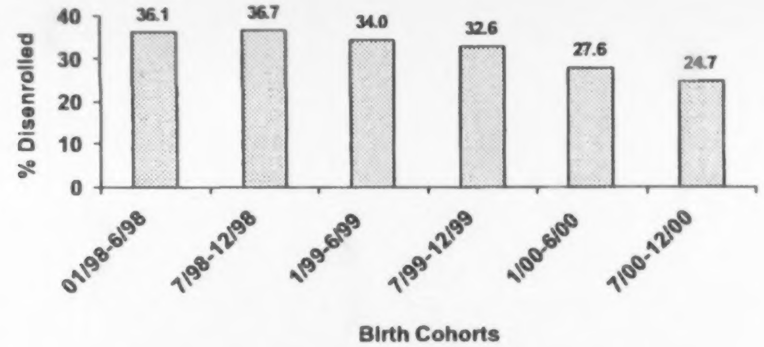


Figure 7.14 Disenrollment Within 13 Months from Initial Enrollment in Medicaid by Birth Cohort

Similar to age at enrollment in Medicaid, significant differences were observed across eligibility categories, with higher rates of disenrollment among Healthy Start enrollees than those of the OWF/LIF program (Figure 7.15). However, the gap in disenrollment narrowed from nearly 17 points in the earliest cohort to 5 points in the last cohort. Such differences in disenrollment patterns by eligibility may be explained by the fact that families in the Healthy Start group may be more likely than those in the OWF/LIF group to experience improvement in their income status, and therefore have a lesser need to rely on public assistance. By definition, individuals in the Healthy Start group have incomes close to the eligibility cut-off, and increases in their income may result in loss of eligibility for the Medicaid program. For those enrolled in Medicaid through the OWF/LIF program, however, an increase in their income implies a switch in the eligibility category and receipt of health care coverage through the Healthy Start program. While these patterns could be perceived as positive, programmatic and policy decisions should be guided by additional studies aimed at gaining a better understanding of the insurance status of families following their disenrollment from Medicaid, particularly for the OWF/LIF population, in which the decreasing trend was not as significant.

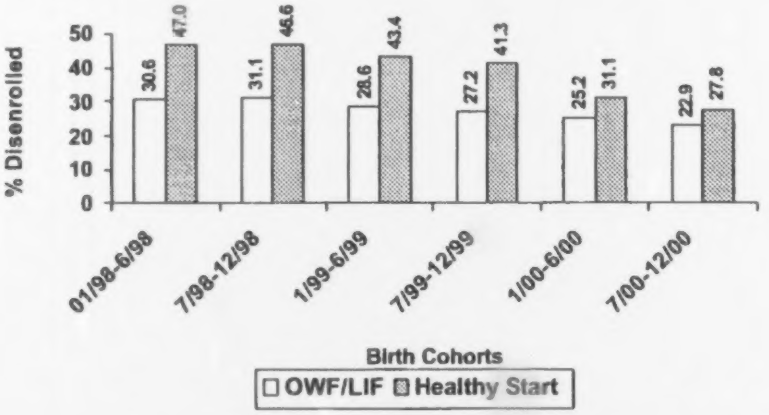


Figure 7.15 Disenrollment Within 13 Months from Initial Enrollment in Medicaid, by Birth Cohort and Eligibility Category

Utilization Measures:

Through early and continued enrollment in Medicaid, the ECI hopes to promote early initiation and sustained contact with the health care system. It is expected that these efforts will result in:

- Receipt of comprehensive preventive visits (CPV)
- Increased use of primary care services
- Decreased use of services through the Emergency Department (ED) for non-injury related conditions
- Decreased use of inpatient services for Ambulatory Care Sensitive (ACS) conditions

Due to the high volume of Medicaid claims and encounter data and the timing of this report, the present study will report results only on the receipt of comprehensive preventive visits, and use of visits to the ED. Also, as stated above, analyses in this report will reflect the experience of children with no special health care needs, and for certain measures, that of children enrolling in Medicaid upon birth. Future studies will encompass the health care utilization of children enrolling in Medicaid after birth, and that of children with special health care needs. The study of the utilization experience for the latter cohort will be specific to health conditions (e.g., very premature infants; cerebral palsy; birth defects).

Receipt of Comprehensive Preventive Visits (CPVs)

The American Academy of Pediatrics (AAP) recommends at least one CPV by 4 weeks of age, two CPVs by 3 months of age, and five CPVs by 12 months of age (Committee on Practice and Ambulatory Medicine, 2000). This study examined (a) early initiation of care, as measured by the proportion of children receiving at least one CPV by 1 month (excluding the first week of life), 2 months, and 3 months of age, as well as those receiving no CPV in that timeframe; and (b) the proportion of children receiving the recommended number of CPVs in the first year of life.

Early Initiation of CPVs:

As shown in Figure 7.16, we note a substantial increase in the proportion of infants receiving CPV in the first month of life -- from 29.8% in 1998 to 42.8% in 2001 ($p < 0.001$). Similarly, the proportion of children receiving CPV by the second and third months of life increased respectively from 11.0% to 13.7% and from 9.4% to 11.2% during that time period. Similarly, the proportion of children not receiving any CPV by 3 months of age decreased from 50.0% to 32.3% ($p < 0.001$).

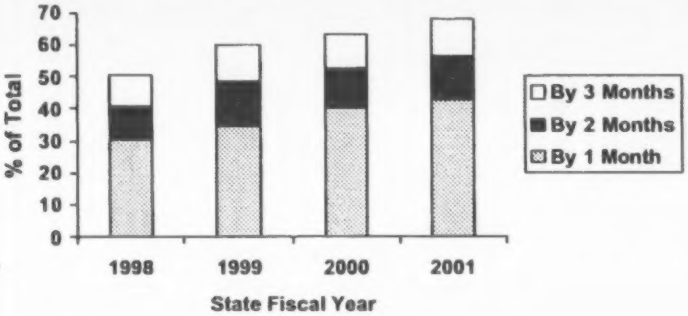


Figure 7.16 Receipt of Comprehensive Preventive Visits in the First 3 Months of Life, by Study Year

Figures 7.17 and 7.18 depict respectively the proportion of post-ECI infants enrolled in Medicaid with early initiation of CPV (or those receiving CPV within the first 3 months of life), and the change in these proportions from the pre-ECI period, by City of Cleveland neighborhood and suburban municipality (referred to as neighborhoods). The availability of these two maps makes it possible to identify neighborhood areas with the greatest need for targeted interventions to increase early initiation of CPV among infants enrolled in the Medicaid program.

Of the 58 neighborhoods for which data are shown in Figure 7.17, 17 neighborhoods had proportions ranging from approximately 62% to 67%, while 26 neighborhoods had proportions ranging from about 67% to 73%. The percentage of infants receiving CPV in the first 3 months of life were in the low ranges of 50-62% in 8 neighborhoods, and in the high ranges of 73-81% in the remaining 7 neighborhoods.

The neighborhoods with the lowest proportions of early initiation of CPV were Westlake, Parma, Parma Heights, and North Royalton on the West and South sides of Cuyahoga County, and Cleveland Heights, Mayfield Heights, Bedford, and Maple Heights on the East side of Cuyahoga County. The highest proportions were observed in Ohio City, Clark-Fulton, Edgewater, West Blvd., Brooklyn Center, and Berea.

Of the 47 neighborhoods for which data are shown in Figure 7.18, the greatest improvement (13-17% increase) in the percentage of children receiving CPV by the 3rd month of life from the pre-ECI period was seen in five neighborhoods – Edgewater, Brooklyn Centre, Central, Woodland Hills, and Corlett; and an increase by 10-13% was observed in 9 neighborhoods; and an increase by 5-10% was observed in 12 neighborhoods. The proportion of infants with early initiation of CPV remained relatively unchanged in 18 neighborhoods (between –5% and 5%). The sharpest decreases (i.e., those that declined more than 5%) occurred in Cleveland Heights, Parma Heights, and Brook Park.

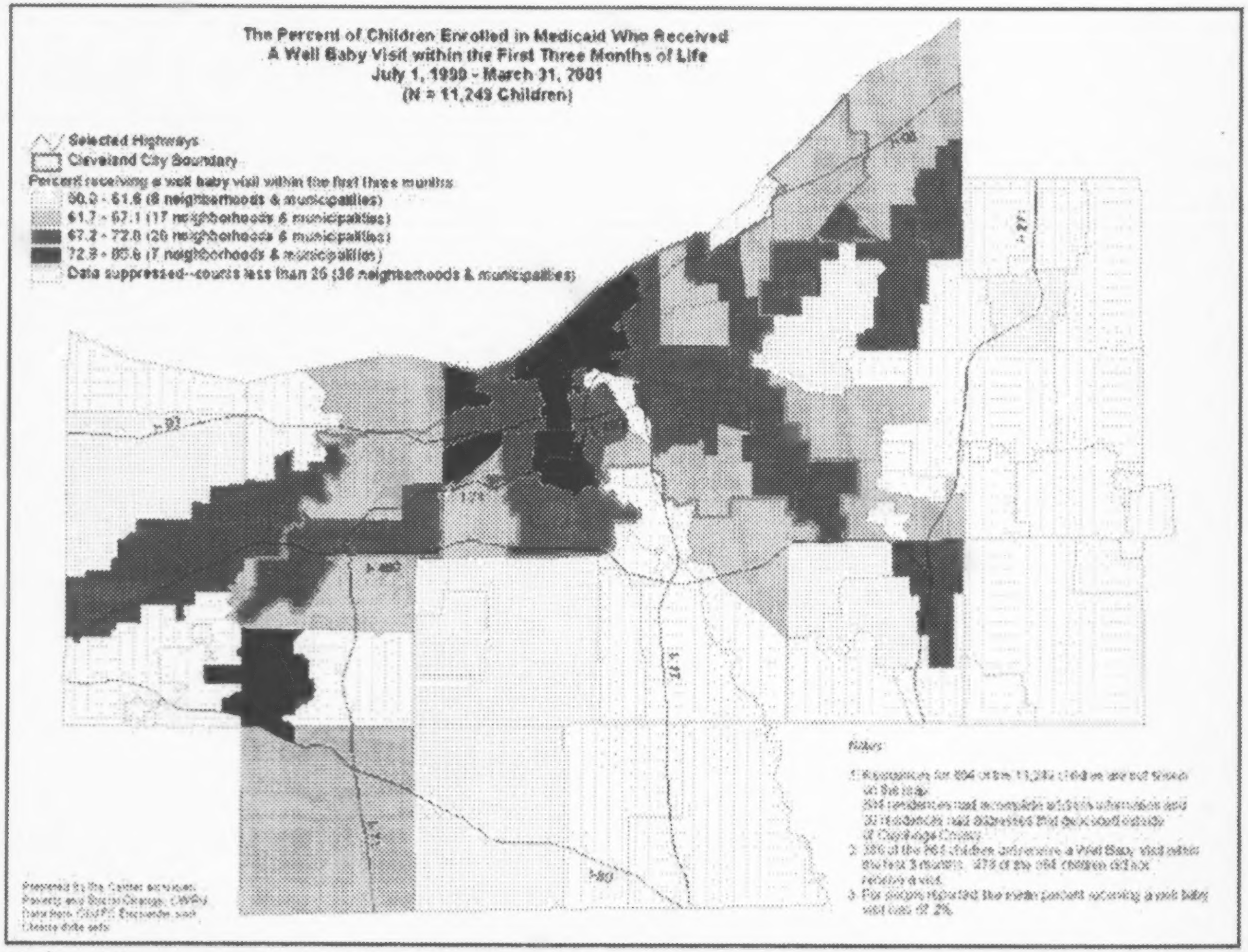

The Percent of Children Enrolled in Medicaid Who Received
A Well Baby Visit within the First Three Months of Life
July 1, 1999 - March 31, 2001
(N = 11,249 Children)
Selected Highways
Cleveland City Boundary
Percent receiving a well baby visit within the first three months
50.3 - 61.6 (8 neighborhoods & municipalities)
61.7 - 67.1 (17 neighborhoods & municipalities)
67.2 - 72.8 (26 neighborhoods & municipalities)
72.9 - 80.6 (7 neighborhoods & municipalities)
Data suppressed--counts less than 25 (36 neighborhoods & municipalities)
Notes:

Figure 7.17 Map of Percent of Medicaid Children Receiving Well Baby Visit in First Three Months of Life (Children Born July 1, 1999 to March 31, 2001)

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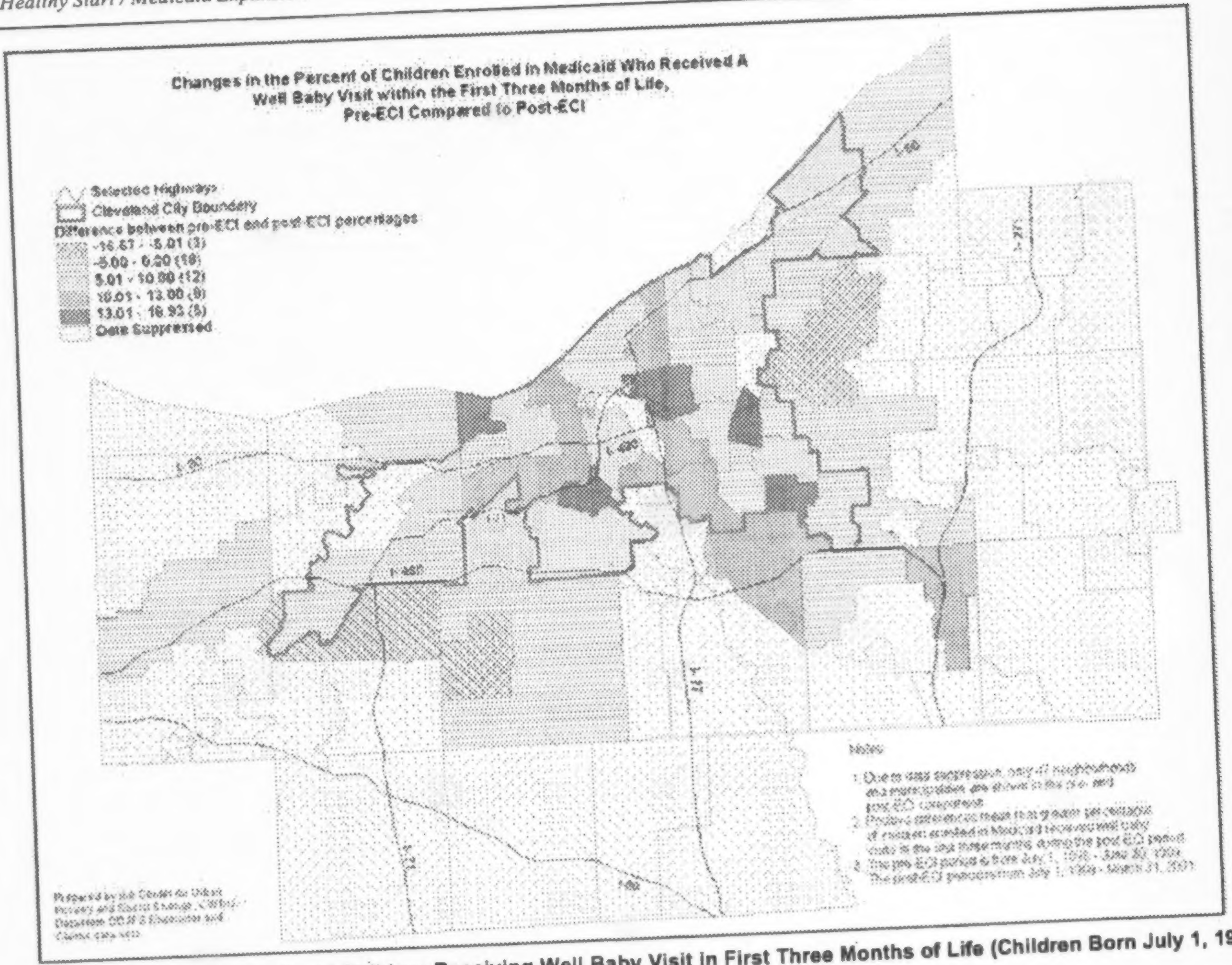
Changes in the Percent of Children Enrolled in Medicaid Who Received A Well Baby Visit within the First Three Months of Life, Pre-ECI Compared to Post-ECI
Selected Highways
Cleveland City Boundary
Difference between pre-ECI and post-ECI percentages
-16.61 - -5.01 (3)
-5.00 - 0.20 (18)
5.01 - 10.00 (12)
10.01 - 13.00 (8)
13.01 - 16.93 (5)
Data Suppressed
I-90
I-490
I-77
I-480
I-71
I-271

Notes:

1. Due to data suppression, only 47 neighborhoods and municipalities are shown in the pre- and post-ECI comparison.
2. Positive differences mean that a greater percentage of children enrolled in Medicaid received well baby visits in the first three months during the post-ECI period.
3. The pre-ECI period is from July 1, 1998 - June 30, 1999. The post-ECI period is from July 1, 1999 - March 31, 2001.

Prepared by the Center for Urban Poverty and Social Change, CWRU. Database: ODJFS [illegible] and Claims data [illegible]

Figure 7.18 Map of Change in Medicaid Children Receiving Well Baby Visit in First Three Months of Life (Children Born July 1, 1999 to March 31, 2001 Compared to Children Born July 1, 1998 to June 30, 1999)

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It is noteworthy that some of the neighborhoods with the highest rates of increase in early initiation of CPV were also identified as ones with the highest proportion of this measure, and modest changes were observed in neighborhoods with relatively low measures of early CPV initiation even in the post-ECI period. Similarly, both neighborhood areas with the sharpest decrease -- Cleveland Heights and Parma Heights -- were identified among those with the lowest proportions of early initiation of CPV in Cuyahoga County. Additional analyses are needed to elucidate factors associated with low rates of early initiation of CPV, especially in neighborhoods where such low measures have persisted.

Receipt of the Recommended Number of CPVs by 1 Year of Age:

As noted above, the AAP recommends receipt of at least 5 CPVs in the first year of life. The proportion of children receiving 5 or more CPVs by the first birthday is depicted in Figure 7.19. The study population for this analysis included children enrolled in Medicaid upon birth and who also remained continuously enrolled in Medicaid through the first year of life.

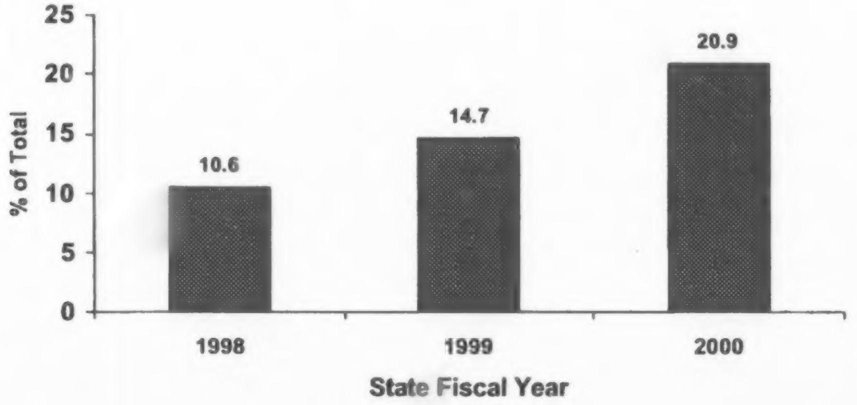


Figure 7.19 Proportion of Children Receiving 5 or More Comprehensive Preventive Visits in the First Year of Life

The proportion of children receiving at least 5 CPVs in the first year of life increased from 10.6% in 1998 to 20.9% in 2000 (Figure 7.19). Parallel to this trend, the proportion of children not receiving any CPV in their first year of life decreased from 22.3% to 12.1% during the same time period.

Visits to the Emergency Department (ED)

We report here the rate of receipt of non-injury ED visits by age group, and by study year. As shown in Figure 7.20, higher rates of children with ED visits were observed in younger compared to older age groups, particularly among newborns (0-2 months), infants (age 3-12 months), and toddlers (1-2 years of age), with the rate decreasing gradually in children of older age groups. However, no changes in the rate of ED visits by study year could be discerned through this analysis, despite favorable changes in the receipt of CPVs.

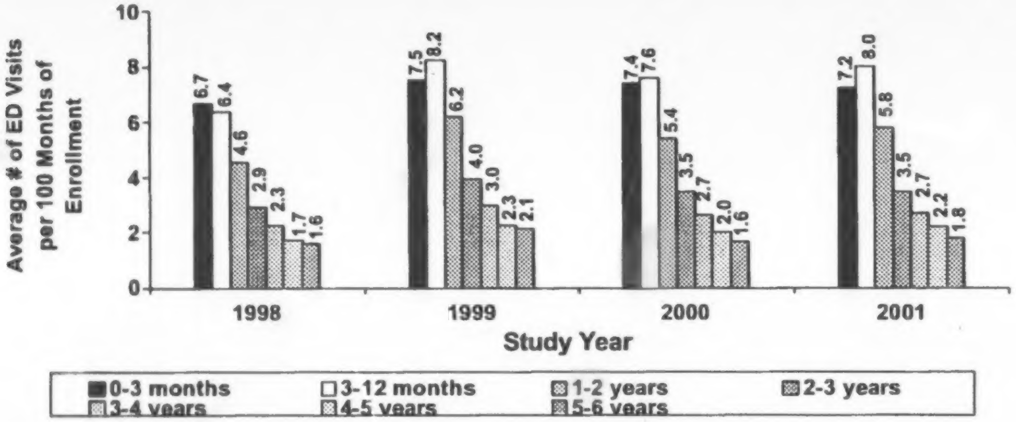


Figure 7.20 Rate of Emergency Department (ED) Visits per 100 Months, by Age and Study Year

This study also examined the intensity of ED visits across age groups, and across different study cohorts, using the procedure codes recorded on ED claims data from the *Physicians' Current Procedural Terminology, 4^{th} edition* (CPT-4) (American Medical Association, 1993). These codes are defined respectively as ED visits for the evaluation and management of a patient, which requires (a) a problem-focused history; a problem-focused examination; and straightforward medical decision making (CPT-4 99281); and (b) an expanded problem-focused history; an expanded-problem focused examination; and medical decision making of low complexity (CPT-4 99282). These codes, which describe the complexity of care rendered in the ED, are determinants of the payment amount. They have been used by others to assess the extent of ED use for "nonurgent" emergency care, or as a proxy measure for inadequate use of primary care (Grossman et al., 1998). See Figure 7.21. It should be noted that this measure was not developed to assess whether a particular case should have been handled in the ED (versus office visit), rather it is descriptive of the type of care administered.

Findings from this analysis indicated that the proportion of low complexity visits varied slightly across age groups, with the highest rates among newborns. More importantly, however, we note that the proportion of ED visits with low complexity did not change substantially over time. This finding is consistent with results from other studies evaluating the effects of programs aimed at improving children's utilization of health services (Zwanziger et al., 2000). In one study in central Ohio, an intervention aimed at educating parents of children with low complexity ED visits about the appropriate use of ED and primary care resulted in a decrease of subsequent ED use for nonurgent care. However, the study fell short of determining whether there was also an increase in use of primary care services.

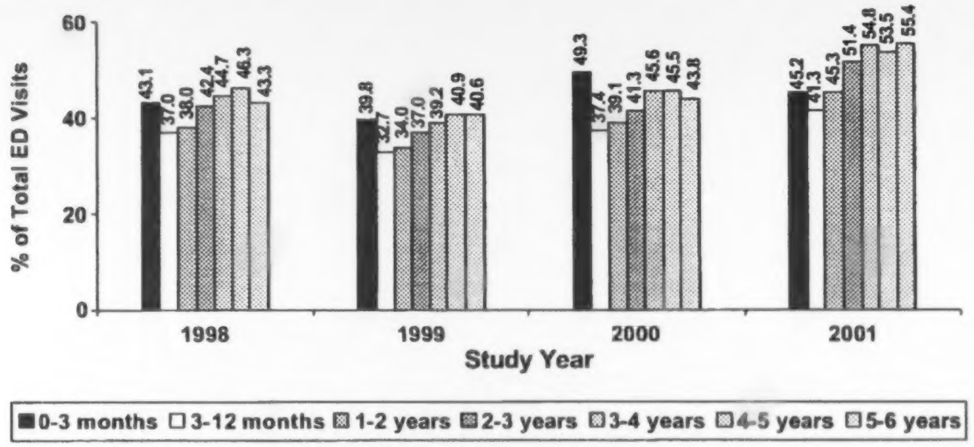


Figure 7.21 Proportion of ED Visits for Conditions of Low Complexity, by Age Group and Study Year

Conclusion and Discussion

There appear to be improving trends in measures pertaining to early and sustained enrollment in the Medicaid program, as well as early initiation and receipt of comprehensive preventive visits among infants, according to the recommended schedule of such visits. However, additional analyses are warranted to identify programmatic aspects that may have contributed to -- or hindered -- progress towards achieving program goals.

Limitations:

Claim and encounter data are available for all services received by children during the time that they were enrolled in Medicaid, and were paid by Medicaid or the MCO. Thus, the files do not include records for services that were received by children when they were not enrolled in Medicaid, nor do they include records for services received through clinics that do not seek reimbursement from Medicaid (e.g., public health clinics). These limitations have important implications in designing the present study and interpreting the results. First, they imply that the claims history may be incomplete for children who are not continuously enrolled in the program during the study period. Second, they could explain potential undercounts in certain categories of service, such as immunization or certain screening services.

Limitations should also be noted with regard to the completeness and accuracy of diagnosis and procedure codes recorded on claims and encounter data. For example, comprehensive preventive visits are counted as such only to the extent that the relevant codes are accurately recorded in the data. Similarly, ED visits of low complexity were based on the codes available in the data. These codes are subject to variation across providers and across time.

Results in this study are based on data only on individuals residing in Cuyahoga County. Also, the data reflect temporal changes in enrollment and utilization data coinciding with significant expansion in the size of Medicaid managed care programs in Cuyahoga County along with shifts in the demographic characteristics of eligible populations, and changes in the Medicaid managed care marketplace. The effects of ECI may be better studied independently from that of Medicaid managed care programs. One promising approach would be to compare measures studied in this report with that of other counties in Ohio also experiencing significant expansion in Medicaid managed care programs.

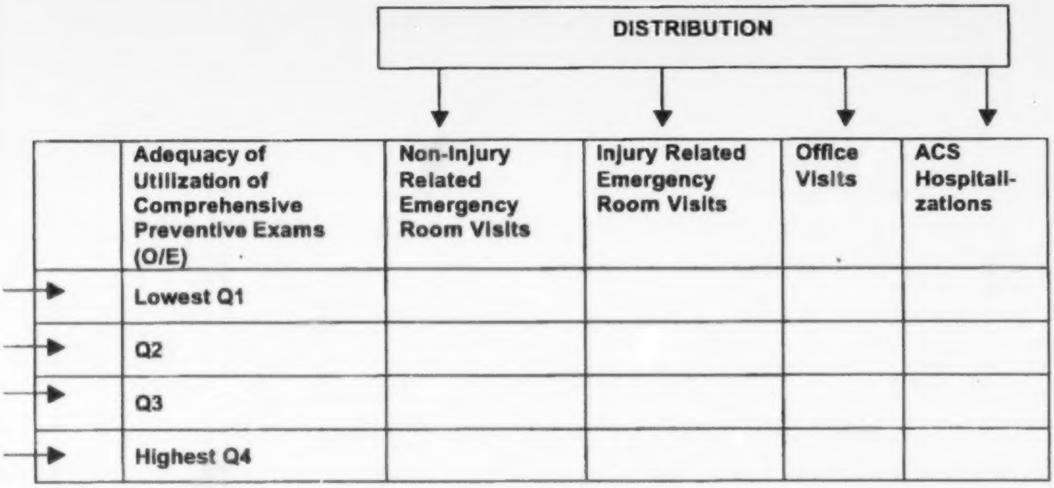
Future Directions:

This report presents initial results from the analysis of Medicaid enrollment and claims/encounter files. Given the timing of data releases from the State and the effort required to analyze claims and encounter data, the present report focuses on subsets of measures only. Additional analyses are underway. Most imminently, future analyses will account for children with special health care needs, and for those who have enrolled in Medicaid sometime after birth. Other studies that could be undertaken in the near future include:

a. *Enrollment/Disenrollment/Re-enrollment*: A more thorough analysis of enrollment and disenrollment in Medicaid is warranted. The present study examined the age at initial enrollment in Medicaid, and the duration of the initial spell. Several questions remain unanswered. In particular, it would be of interest to learn how many, who, and when these children re-enroll in Medicaid. It would also be of interest to learn about children's patterns of enrollment in Medicaid in relation to that of the mother's (during pregnancy) and other household members' enrollment.

b. *Utilization measures*: Several analyses are underway to study ED visits and hospitalizations for conditions that are ambulatory care sensitive (ACS). As defined by the Agency of Healthcare Research and Quality (2002), these are "conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease." Specifically, these analyses will aim at determining whether there have been any decreasing trends in ED visits or hospitalizations that are ambulatory care sensitive, following implementation of the ECI.

In addition, analyses will consider composite measures to account for simultaneous changes in several aspects of health care utilization. As depicted in Figure 7.22, these studies will aim at determining the distribution of one utilization measure in relation to another.



DISTRIBUTION

	Adequacy of Utilization of Comprehensive Preventive Exams (O/E)	Non-Injury Related Emergency Room Visits	Injury Related Emergency Room Visits	Office Visits	ACS Hospitalizations
	Lowest Q1				
	Q2				
	Q3				
	Highest Q4				

Figure 7.22 Matrix Summarizing Utilization of Health Services by Children Enrolled in the Medicaid Program

Future analysis of enrollment/disenrollment in Medicaid and utilization measures will also seek to explore the effects of exposure to specific Components of the Early Childhood Initiative (ECI), such as the Welcome Home program, specifically targeted to facilitate early initiation of child health care. Furthermore, as stated above, such analyses should account for other changes in the health care delivery system occurring simultaneously with the implementation of the ECI, such as changes in Medicaid managed care programs.

Also, as noted above, in order to assess the effects of ECI on enrollment and utilization measures independently from that of Medicaid Managed Care in Cuyahoga County, the proposed analyses could encompass other counties in Ohio that also experienced significant expansion in Medicaid Managed Care programs during the study period, but where no programs equivalent to the ECI were available.

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Appendix 7.1 Diagnosis and Procedure Codes Used in Identifying Comprehensive Preventive Visits, Emergency Department Visits, and Office Visits

Category	ICD.9 Diagnosis Codes	CPT Procedure Codes
Comprehensive Preventive Exams	V20.1 Other healthy infant or child receiving care V20.2 Routine infant or child health check V70.0 Routine general medical examination at a health care facility V79.3 Special screening for developmental Handicaps (V79.3)	99201-99205 (office/outpatient service, new patient) 99211-99215 (office/outpatient service, established patient) 99420 (counseling/risk factor reduction intervention, new or established patients) 99431, 99432 (newborns) 99381, 99383 (new patient, infant; age 1-4, 5-11) 99391, 99393 (established patients; infants, age 1-4, 5-11)
Non-Injury-Related Emergency Room Visits	Any diagnosis code, excluding 800-995, E800-877; E880-889; E950-999	99281-99285

Chapter 8
Systems and Policy Change

Judith Simpson and Claudia Coulton

Chapter Summary

Those who came together to launch the Early Childhood Initiative (ECI) shared a common vision of improving outcomes for all children in Cuyahoga County. Leadership of the ECI was responsible for a series of influential strategic choices that have set the course of the Initiative during its start-up period. Primary among them was the decision to employ a services integration strategy that built on existing capacity within Cuyahoga County's public agencies and contract organizations.

At this point in the process of implementing the services integration model it can be said that the ECI (a) facilitated a cultural shift among the departments involved to create a coordinated response to children's needs, (b) created formal, structured collaborations that did not previously exist, (c) routinely facilitated cross-system referrals, (d) created an entirely new home-based child care network and integrated it with other systems, and (e) developed new linkages between community-based agencies and families across the county. Lingering perceived barriers remain, including concerns about long-term political support, long-term funding, and the availability of a sufficient and qualified labor pool.

Issues raised in the Interim Evaluation Report have, for the most part, been addressed in some form. A transition planning strategy has been developed to smooth children's transitions into appropriate programs and services at various age levels, and the strategy has been widely adopted. While internal communications issues have been successfully resolved, the purpose and audience for the ECI's external communications still requires clarification. Finally, funding for the next stage of ECI operations has been secured, assuring its financial sustainability in the short-term.

While lessons learned have been many, informants highlighted leadership, building on existing strengths, providing sufficient planning time, implementing at a reasonable pace, drawing on the strength of relationships, and integrating evaluation design with program implementation as advice they would offer to those interested in replication.

Future issues facing the Initiative include: (a) complex questions of strategy and leadership, (b) organizational structure, governance and staffing, (c) ongoing funding, and (d) communications strategy. To address these issues, the major recommendation in this report is to convene a comprehensive strategic planning process during the next 2 years.

Background

The Cuyahoga County Early Childhood Initiative (ECI) is a coordinated effort to improve outcomes for children countywide through implementation of a comprehensive services integration strategy. Critical leadership decisions made at its inception continue to influence the ECI's structure, governance, scope, and funding. The purposes of this second study of the systems and policy issues raised by the Initiative are (a) to provide a retrospective analysis of the external forces and internal decisions that shaped the ECI, (b) to review its achievements and the barriers encountered in implementing its strategy, (c) to discuss the lessons learned from the experience that could be of potential benefit to other communities, and (d) to reflect on the issues that need to be addressed as the Initiative moves into its next phase of development.

Prior Study of ECI's Impact on Systems and Policy Change

As part of the ongoing evaluation of the ECI, an initial study addressing its systems and policy change impact was conducted in 2001 (Milligan, Cole, Allen, & Jones, 2001). Using structured interviews with 34 key informants working at various levels within the Initiative, supplemented by archival data, the study provided an overview of the early influence of the ECI in this regard. The findings of this study were presented in November, 2001 as part of the Interim Evaluation Report, and are summarized as follows:

- New collaboration between private and public funders has led to a more unified vision of systemic change and the funding to sustain it
- Increased cooperation among program implementers has decreased service duplication and improved service integration and efficiency
- Numerous policies and internal structures were changed and/or implemented within the collaborating organizations and departments, leading to changes in systems serving children and families both within Cuyahoga County and beyond
- Service delivery planning has been reshaped to meet the needs of children and families, and involves problem-solving to more effectively achieve services integration
- The ECI's influence extends beyond the County, with the State of Ohio adopting one of the components of the Initiative as a model of service provision to vulnerable families
- The ECI has become a magnet for a variety of additional projects and resources that have the potential to further its aims and vision

This initial study of the ECI's systems and policy implications also identified three areas in which improvements were strongly suggested. These were:

- Communication issues need to be addressed. Externally, increased efforts are required to raise public awareness of ECI, and to insure that service providers can effectively communicate information about the system to parents. Internally, communication among contractors and between contractors and the ECI could be improved.
- Attention is needed to the ways in which children make the transition between programs serving the birth to age three, age three to five, and kindergarten cohorts.
- The financial, political, and structural sustainability of the ECI needs to be secured.

Methods

The present study builds on the process and findings of the Interim Report. By focusing on a more narrowly configured group of informants who have played essential roles launching and implementing the ECI, it seeks to provide a highly focused assessment of the Initiative's current progress and future challenges.

In-person interviews were conducted with six key informants using a structured questionnaire that addressed the following questions:

1. In what ways has the Early Childhood Initiative continued to implement the process of developing a system of care for young children in Cuyahoga County, and what barriers have been encountered in the ongoing development of this approach?
2. How has the Initiative moved to address the key findings of the Interim Evaluation Report with respect to improving communication, facilitating the transition of children between programs at critical junctures, and assuring its sustainability?
3. How might the experience of implementing the ECI be instructive for communities interested in creating similar comprehensive programs?
4. What issues might the Initiative likely encounter in future years?

The individuals interviewed for this component of the evaluation represent the directors of the three programs that were expanded to create the Early Childhood Initiative, the lead private sector funder, and elected and appointed officials of Cuyahoga County government. They are:

- Timothy McCormack, Co-Chair, ECI Partnership Committee and Chair, Board of Cuyahoga County Commissioners
- Goldie K. Alvis, Senior Program Officer, The Cleveland Foundation
- Joseph Gauntner, Director, Cuyahoga Health and Nutrition
- Melissa Manos, Director, Cuyahoga County Help Me Grow Collaborative
- Bette Meyer, Deputy County Administrator for Health and Human Services
- Billie Osborne-Fears, Executive Director, Starting Point
- Jay Talbot, Special Projects Officer, The Cleveland Foundation

Written transcripts were prepared from the audiotaped interviews and formed the dataset for this study. Drafts of this component of the study were circulated for review prior to its release, and suggested revisions were made to ensure accuracy in both the intended spirit and letter of the responses.

Findings

The findings from the key informant interviews are organized under six domains: (a) vision, leadership, and strategy, (b) service integration accomplishments, (c) barriers to implementing the services integration strategy, (d) progress on issues raised in the Interim Report, (e) lessons learned that could be of value for replications, and (f) the future of the Early Childhood Initiative.

Vision, Leadership, and Strategy:

For the past decade or more it has been clear that outcomes for children in Cleveland and Cuyahoga County have consistently lagged behind those of children in other urban areas of the country. The *KIDS COUNT* publications of the Annie E. Casey Foundation, supplemented by monographs from the Children's Defense Fund, and reporting by the Cleveland *Plain Dealer*, routinely brought to light the fact that children in Cleveland and Cuyahoga County fared poorly on multiple objective indicators of child well-being.

There is no question that those who came together to launch the ECI shared a common vision of improving outcomes for all children in Cuyahoga County. The extent to which that vision has been accomplished will be determined over the next several years, as the evaluation continues to track Cuyahoga County's progress on a number of indicators of child well-being.

To actualize this shared vision, a series of strategic decisions was made by the initial architects of the Initiative that set its course for the next three years. These early, influential strategic choices were made by a small group of individuals convened by Cuyahoga County and The Cleveland Foundation. The leadership exercised by these individuals and institutions not only generated the funding and political support that made the ECI possible, but also established the critical strategies that guided the ECI during its start-up phase. This section of the study examines and discusses these strategic decisions and their implications for the Initiative during its start-up period.

Strategy I: Electing to pursue a services integration strategy that affirms and expands Cuyahoga County government's central role in planning, coordinating, and providing services to the County's families and children

Two competing strategic models for improving child outcomes at the population level have emerged nationally in recent years: (a) the community coalition model, and (b) the services integration model. The community coalition model, which has been adopted in other Ohio cities, notably Cincinnati, focuses on improving child outcomes by mobilizing a broad base of upper echelon support for an ambitious, well-publicized, long-term set of community goals for children. The community coalition strategy is a model that strives to hold a community's institutions collectively accountable for improving child outcomes. Private sector leaders assume leadership responsibility for crafting, marketing, and assessing the results of this strategy, while all local child-serving institutions, including the public schools, are held accountable for achieving the long-term, targeted goals. The community coalition model vests the private sector with authority for holding the community's public and private sector agencies collectively responsible for improved child outcomes.

The services integration strategy, adopted by the leadership of the ECI, focuses on improving child outcomes through creating an integrated, accessible network of direct services for families and children. By linking newly created and existing services into a coordinated network providing assessment, referral, and intervention during a child's earliest years, the services integration model seeks to improve child outcomes by creating a more cohesive, less fragmented service system.

The decision to pursue a services integration strategy was driven by a number of considerations. When the ECI was developed, Cuyahoga County already played a major childrens' services planning and coordinating function through the Cuyahoga County Family and Children First Council. County government was directly responsible for providing a group of services – health insurance coverage and early intervention – that were considered essential elements to ensuring child well-being. Indirectly, through its contracting process, it funded the nonprofit child care system as well. The responsibility for moving thousands of cash assistance recipients from welfare to work and concomitantly investing in a vastly expanded child care system also fell to the County at precisely this time. County government also served as the conduit for federal and state funds for health care, early intervention and child care. Thus, when the ECI was initiated, Cuyahoga County had a service delivery infrastructure in place, the means to bring these elements of a "system of care" together, and the influence, through funding and contracting, to control the process.

Not all of those interviewed for this study agreed with the leadership group's adoption of the services integration strategy as Cuyahoga County's investment in improving child outcomes, and some continue to question this choice of strategy. Among those respondents, the model is criticized for minimizing the role and influence of private sector leadership, and for its relatively narrow, service-focused scope. Critics are more likely to support the community coalition model.

Strategy II: Using the public/private partnership to create a flexible funding mechanism

Many of the funding streams that support the ECI's core service delivery mix were already in place when the ECI was created. These consisted primarily of State and Federal funds for Medicaid expansion, early intervention services, and child care, supplemented by budgeted allocations from the County's general fund. Because Cuyahoga County's welfare population was the largest in the state, the county was also flush with federal funds from the Temporary Assistance to Needy Families (TANF) legislation, which were channeled to the county through the Ohio Department of Job and Family Services. Unlike most federal and state funding, TANF dollars could be used creatively by counties to develop the services necessary for facilitating parents' transitions from welfare to work, including the provision of a broad array of services for low-income families and children.

Developing a truly integrated system of services to families and young children, however, required dollars without regulatory strings that could be used to knit the elements of the network together, fill unfunded gaps in service, innovate within the components of the system, and publicize and evaluate the Initiative. Private resources were key to creating the flexible funding package that enabled the ECI to address these needs. Not only did The Cleveland Foundation commit $2.5 million of its own funds to the ECI, but it also collaborated closely with the county to raise an additional $7.5 million in private resources from over twenty other foundations and funding partners.

While there was consensus among our respondents that the ECI brought public and private sector funders together in an unprecedented way to address service delivery needs, perceptions of the magnitude and permanency of this change varied substantially. Most felt the public/private partnership strategy has been uniquely valuable for several reasons: (a) it created broad support for the concept of the Initiative by bringing private sector funders to the table and giving them an investment stake in the process; (b) it broke through the historical reluctance of many foundations to make grants to a governmental entity; and (c) it diminished the likelihood that competing models of community change would be funded concurrently with the ECI. On the other hand, some interviewees expressed a degree of pessimism that the partnership has changed the way the community mobilizes around social problems generally, and questioned the likelihood of its viability as a model for funding future programs or processes.

The public/private partnership strategy adopted by the architects of the ECI also had ramifications for the oversight structure of the Initiative. Based on past experience, it was generally understood that some foundations would not come to the table as investors without being given an oversight role. Thus, the need for a flexible funding mechanism also dictated an oversight structure, the Partnership Committee, composed of board-level funding stakeholders. The composition of the Partnership Committee reflected a change in the typical staff-driven pattern of community collaborations, since it vested decision making about the ECI at the policy level – trustees and elected officials – within the sponsoring institutions.

It is important to note that the Partnership Committee is configured so as to include only government and foundation funders. Thus, the oversight structure of the ECI is reflective of its funding strategy. The composition of the Partnership Committee was not meant as a strategy for eliciting the broadest or most inclusive base of community support for achieving the Initiative's goals.

Strategy III: Assuring availability of services based on the need of the child rather than the income of the family whenever feasible

From its inception the leadership of the ECI forged a consensus around the desirability of universal access to services and programs within regulatory constraints. While some programs, such as Healthy Start/Medicaid, carry eligibility restrictions based on family income that require compliance, most of the programs linked by the ECI as part of its system of care were designed as universal programs. The implications of this strategic choice are key to its present support and, potentially, to its future sustainability. First, the ECI positioned the County as a provider of value-added services to suburban families. Welcome Home visits, for example, are made to first-time mothers and teen mothers in the wealthiest suburbs as well as the poorest neighborhoods. As a result of this decision, the ECI does not bear the stigma of being a "poverty program" or a "welfare program." Universal access based on the need of the child diminished any negativity associated with the receipt of services while creating a potential base of support for the Initiative among suburban voters in future years. In addition, it fostered political support for the ECI by avoiding urban/suburban constituency divisions.

The universal access strategy also meant that most ECI programs could be implemented without the administrative burden associated with means-testing. As welfare reform efforts reduced the size of the County's workforce over time it became less feasible for the County to implement new programs requiring stringent eligibility assessment.

A corollary decision was made by the leadership to implement the ECI at scale from its inception, rather than begin with a modest demonstration project that could be expanded if results warranted. Only across-the-board implementation, it was thought, would give the ECI the capacity to affect community-level child outcomes. While it was bold and, perhaps, risky, to begin the ECI at scale, it also enabled the Partnership Committee to avoid potentially divisive discussions about whether, when, and how to decide if the results warranted expansion. Launching the Initiative at scale, it could be argued, was a strategy that both contributed to the maintenance of the Partnership and sent a strong signal that the ECI was the community's primary response to the impetus to improve child outcomes.

Strategy IV: Evaluating the programs through which the Initiative is implemented

The ECI's initial leadership group was committed from the onset to evaluating the ECI and using evaluation findings to fine-tune programs and make mid-course corrections when necessary. They invested significantly in evaluation research, bringing both local and national expertise to its design and implementation, and to the dissemination of findings.

When asked their perception of the extent to which the ECI has used evaluation as a tool for program improvement, respondents had somewhat mixed responses. Some maintained that the interactive process between evaluators and managers has decreased the fear of a negative evaluation, and observed that the evaluators have at times become partners with managers in planning program improvements based on evaluation data. Others suggested improvements to the evaluation process, such as adding observational data to scores on standardized instruments to obtain a more complete picture of the interaction at program sites, or conducting longitudinal studies. A minority of those interviewed felt the evaluation had no impact on managers' perceptions of the usefulness of evaluation as a tool for program change, or expressed dissatisfaction with the evaluation process.

Services Integration Accomplishments:

Three organizational entities were selected to implement the services integration strategy through the development and/or expansion of programs and services: Cuyahoga Health and Nutrition, the Cuyahoga County Early Intervention Collaborative (Help Me Grow), and Starting Point, the regional child care resource and referral agency. The goal of these efforts was the development of a comprehensive network of services for young children and their families that could be accessed at any point of contact and would be supported by the flexible utilization of public and private resources. Key elements of this system of care include:

- *Integrated services and programs*, designed to offer an easily accessible "seamless continuum of care," reduce duplication and fragmentation, and create a comprehensive approach to the planning and delivery of services
- *Integrated referral capacity*, facilitated by training all staff of ECI-affiliated programs to cross-refer children and families to appropriate services throughout the system
- *Integrated funding* through merging public and private resources to maximize flexibility, spur innovation, and decrease regulatory requirements when possible

For the most part, interviewees felt the ECI's goal of developing an integrated service delivery system has now been achieved to a great extent. There is an overall sense of satisfaction that what has been accomplished thus far is "a good start," and that the linkages, processes, points of contact for children and families, and coordination among programs that have been put into place constitute a solid infrastructure from which to build.

Respondents cited several key accomplishments towards implementing the Initiative's services integration strategy:

- *The ECI has facilitated a cultural shift among the departments and organizations involved to create a more coordinated response to the needs of families.* Whereas in past years a department might have viewed its responsibility for meeting a family's needs from a narrow, "siloed" perspective, integrating services across the child care/Medicaid/early intervention spectrum has now become a routine part of organizational culture and practice within those entities.
- *The ECI has created formal, structured collaborative relationships between agencies that did not previously exist.* These structured collaborations linked together a continuum of services that goes beyond the informal, casual level of cooperation that was the norm prior to the Initiative.
- *The Initiative has facilitated the practice of referring families across programs and systems from any point in the system.* Integrated referrals have become routine as training opportunities for staff have increased. Program staff in participating organizations have also become more knowledgeable about services available outside of the ECI, and attempt to refer families to them when the situation warrants it.
- *In addition to linking existing programs, the ECI created an entirely new home-based child care network within the child care system to fill a service gap.* According to key informants, the ECI is credited with facilitating a "thoughtful, deliberate, planful" approach to creating thousands of child care slots to meet the needs of families making the transition from welfare to work.
- *The ECI has created new linkages between hospital staff, social service agencies, and families through the ECI's home visiting programs, Welcome Home and Early Start.* Informants stated that the relationships built as a result of the ECI's home visiting programs will not only provide an ongoing source of community support for families, but will also sensitize local service providers to the difficult circumstances many families encounter as part of their daily lives.

Barriers to Implementing the Services Integration Strategy:

Although pleased with the progress demonstrated thus far toward implementing the ECI's services integration strategy, some respondents expressed concern about what they perceived as potential barriers to sustaining the envisioned system of care. These included:

- *Concerns about long-term political support.* Several informants expressed anxiety that support for the ECI among elected officials might waver if improvements on child outcome indicators could not be quickly demonstrated. Concern was also expressed that evaluation findings that could potentially be viewed as "negative" might jeopardize political support for the ECI, even though the purpose of the evaluation is to provide an ongoing source of data to facilitate program improvement.

- *Concerns about the availability of ongoing financial support.* Because the ECI wove together several funding streams to create the pool of resources used to support implementation of this strategy, changes in the availability of any of the private or public sources of support have the potential to affect some element of the system. During an era of State and County budget cuts and diminished foundation resources, respondents felt financial issues could be a barrier to successfully achieving this goal, and expressed concern that competition for resources might threaten the strength of inter-agency relationships and partnerships.
- *Concerns about recruitment and retention of qualified staff.* Implementing the ECI's services integration strategy requires an expanded number of trained workers. The ongoing availability of qualified individuals willing to hold these positions at relatively low pay and with few opportunities for advancement was cited as a potential barrier to long-term success.

Progress on Issues Raised in the Interim Report:

The Interim Evaluation Report issued by the Center on Urban Poverty and Social Change and the Chapin Hall Center for Children (Coulton and colleagues, 2001) cited three areas in which improvements to the ECI were suggested. Interviewees' assessment of progress made towards addressing these issues, is presented in this section.

- *"Smoothing transitions for children between programs that serve the birth to three age range, the three to five age range, and the transition to kindergarten."* It is important to note that this is a services integration implementation issue, rather than an issue of overall strategy. It suggests that, in order to achieve a truly integrated system of care for young children, attention must be paid to the transitions between programs children must make as they grow older. It was generally acknowledged by respondents that the responsibility for addressing this issue during the past year has been primarily carried by the Help Me Grow collaborative. In fact, Help Me Grow recently changed its mission to reflect a revised target population of children prenatally to age 5. Results of Help Me Grow's recent work on facilitating transitions that were cited by key informants are as follows:
    - A comprehensive transition planning strategy encompassing services from prenatal care through the kindergarten transition was developed by Help Me Grow's transition committee, which includes representatives of local school districts, Head Start, Early Head Start, Starting Point, hospitals, and social service agencies.
    - The transition planning strategy was approved and formally adopted by key members of the Help Me Grow collaborative, including Head Start, Early Head Start, and Starting Point.
    - Help Me Grow is in the process of obtaining formal adoption of the transition planning strategy on the part of local school districts, who bear responsibility for arranging educational services for children with special needs at age 3, as well as facilitating children's passage to kindergarten at age 5.
    - Help Me Grow is monitoring the compliance of school districts on transition issues, and plans to offer training to districts that lag behind to enable them to function more competently in this regard.

- *"Improving communication between the components of the Initiative, between the ECI and the funders and representatives of the business community, and between the Initiative and the general public."* Imbedded within the broad topic of communications are several distinct issues. Some relate to implementation of the ECI's services integration strategy; others reflect ongoing concern about ECI's overall choice of strategic approach.
  - *Communication as an Implementation Issue*
    - There was strong consensus among those interviewed that communication among the members of the Operations Committee – particularly horizontally among the three agency directors – was excellent. Directors have become adept at joint problem-solving, resolving of conflicts, and establishing mutual support.
    - Communication among upper level staff of the three principal agencies has improved during the past year, mainly as a result of the Directors routinely inviting key deputy-level staff to attend Operations Committee meetings.
    - Communication between line staff of the three principal agencies has also shown improvement due to efforts to cross-train staff to make appropriate referrals within the ECI's network of services. Training seminars have provided an opportunity for line staff to meet and develop relationships with their counterparts in other parts of the system.
    - The ECI's communication with other community service providers continued to be perceived as somewhat inadequate. The one-day community meeting on the interim evaluation findings held in November, 2001 was the most frequently cited communications effort in this regard. There has not been any organized follow-up to this meeting during the past year. According to a key informant, this is the result of "a conscious decision to focus instead on quality improvement training for staff in each strategy."
  - *Communications as a Strategic Issue*

    Generally speaking, the ECI's external communications efforts are logically consistent with its choice of strategy. Discussions with key informants elicited the following perceptions:

    - The frequency and scope of the Initiative's communications with its funders are seen as appropriate and adequate for informing stakeholders and maintaining the public/private partnership.
    - Four of the seven respondents felt the ECI failed in some degree to communicate adequately with Greater Cleveland's business and civic leadership, and criticized its focus on foundations and government. Critics fear the lack of engagement of business leaders, in particular, may result in the Initiative's "not being part of the ethic of the community" in the long-term. It was noted, however, that ECI leadership has participated actively in the United Way Services' Vision Council process, and through that vehicle has introduced business leaders to the Initiative.
    - The name of the program – Cuyahoga County Early Childhood Initiative – was described as "clunky," "awkward," and "inadequate" by several respondents and seen as a barrier to community recognition.
    - Respondents' perceptions of the *purpose* of ECI's communication with the general public dictated the extent to which they felt communication with the

public was improved and effective. Those who saw the purpose as *outreach to potential service users* were generally pleased with strategies used during the past year to create awareness of the ECI's programs and services: bus placards, tray liners, coloring books, radio public service announcements, and so forth. This communications approach is consistent with the ECI's services integration approach. On the other hand, those who perceived the purpose of the ECI's communication with the public as *generating broad-based public awareness and support* were disappointed with the Initiative's results in this regard.

- *"Assuring political and economic sustainability for the Early Childhood Initiative."* Long-term sustainability of the ECI was identified as being an issue of concern to policymakers in the Interim Evaluation Report. While concerns about financial continuity were at the heart of this issue when data for this study was collected in September, 2002, the concept of sustainability proved to be somewhat more complex among the respondents than economic support alone.
  - The financial stability of the Initiative has been assured in the short-term due to multi-year commitments of $8 million from Cuyahoga County resources and over $5.2 million in private sector funding. Questions remain, however, about the long-term sustainability of the ECI's existing programs, as well as the ability of the ECI to add complementary service enhancements in future years.
  - The willingness of the Cuyahoga Board of County Commissioners to allocate significant resources to the Initiative in the midst of a financial crisis was seen as a clear indication that the ECI enjoys political support. However, questions continue to be raised as to whether this showing of political support is for the ECI's *vision* of improving child outcomes, for its services integration *strategy*, or for both.
  - Uneasiness remained among some respondents regarding the depth of community leaders' buy-in to the ECI services integration concept. Some interviewees continued to feel that commitment to the Initiative as "*the* community strategy" for improving child outcomes might be soft.
  - A few of those interviewed questioned whether the Partnership Committee, which is essentially an advisory committee, provided a sufficiently strong oversight structure for sustaining the Initiative in the long-term.

Lessons Learned that Could Be of Value for Replications:

Interviewees were asked to reflect on the lessons learned from implementing the Initiative during its start-up phase that might be shared with communities interested in replicating this strategy. There was broad consensus among the respondents on the following points:

- *Assume leadership.* The powerful message sent by foundation and political leaders who publicly declared that improving child outcomes would be a top community priority was perceived as critical to launching the ECI and garnering the funds required to support its programs.
- *Build on existing services and strengths.* Those interviewed were of one voice in suggesting that no model should be replicated wholesale – the *cookie-cutter* approach. Each community has its uniqueness and strengths that need to be assessed and built upon.

The implementation success of the ECI is the result of capitalizing on the presence of strong, previously existing agencies and services. Respondents cautioned against "starting from scratch" to develop a community system of care.

- *Provide sufficient planning time.* Several respondents noted the importance of a thoughtful planning phase prior to large-scale changes in service delivery patterns. Interestingly, most felt the ECI did not take this approach – largely because of the demands welfare reform was placing on service structures – but strongly supported the need for a deliberative planning period.
- *Implement at a reasonable pace.* The lessons learned from the ECI's experience with rapid implementation of its strategy led to cautions from several informants. Interviewees recommended that policies, procedures, training curricula, and infrastructure necessary for this transition be developed prior to implementation rather than simultaneously with the launch of programs.
- *Draw on the strength of relationships.* The pre-existence of relationships and collaborations among individuals and between agencies was perceived as a key element of success in developing this model. Relationships at the leadership level, among funders, and at the agency level have been critical to problem solving.
- *Integrate evaluation design with service implementation planning.* Determining the data requirements needed to evaluate programs in advance of their launch would facilitate inclusion of these elements in agency data systems from the beginning. This step would not only reduce frustration engendered by the need to reconstruct retrospective data, but increase collaboration between evaluators and program directors during the process.

The Future of the Early Childhood Initiative:

As might be expected at the conclusion of the start-up phase of such a complex and ambitious venture, complicated questions about the Early Childhood Initiative's future were brought to the fore as a consequence of this study. Although the consequences of addressing any of these issues hold implications for reconfiguring them all, for purposes of discussion they are presented as independent topics.

Strategy and Leadership

As has been made clear in this analysis, ECI leadership initially adopted a services integration strategy that focused on linking county-funded programs as the primary means by which it sought to achieve its vision. As this report demonstrates, there is general agreement among Operations Committee members and others that this strategy has been successfully implemented to a great extent and awaits fine-tuning when the programmatic implications of the evaluation findings are sorted out.

Questions continue to be raised, however, about the adequacy of this strategy for generating the level of community support for the ECI that is likely to be required to insure its sustainability in the long-term. Specifically, the decision to eschew pursuit of a community coalition strategy in favor of a more easily controlled and closely held approach may have been an appropriate choice for the ECI's early years, but there is concern that retaining its narrowly configured oversight structure may prove counterproductive in the future.

If it is to continue to operate and innovate, the ECI faces a daunting long-term need for financial support. While some program components have fairly secure, mandated public funding sources, others are supported almost entirely by the millions of dollars in soft money the Initiative has been able to raise from Cuyahoga County and from private foundations. *There is no indication that these resources will continue to be available beyond this next phase of the ECI.* The need to generate additional means of financial support for continuation and potential expansion of the Initiative appears to dictate that consideration be given to exploring a broader organizing strategy more inclusive of business and civic leadership.

There is no question that the ownership and accountability structure of the Initiative as it now stands is in the hands of the County and approximately 20 foundation funders. The question at the heart of the ECI's future is whether ownership and accountability need to be transferred to a more inclusive civic coalition in order to secure for it the broadest possible base of issue awareness, personal commitment, and financial support over time.

Inextricably woven within the issue of strategy is the issue of leadership. From the inception of the Initiative, Cuyahoga County and The Cleveland Foundation have assumed leadership responsibility for conceptualizing, catalyzing support for, and guiding the implementation of the ECI. Discussions of whether and how to broaden the business and civic sectors' investment in the Initiative will need to address the implications of these decisions for broadening its leadership core as well.

Organizational Structure, Governance, and Staffing

Completion of the first phase of the Initiative's development creates an opportunity to review issues associated with its organizational structure. Although the Partnership Committee provides some measure of oversight to the ECI, the Initiative is structurally located as a program within County government and is ultimately accountable to the Board of Cuyahoga County Commissioners. Several persons interviewed for this component of the evaluation suggested that the efficacy of this structure be reviewed in light of the ECI's future needs and that a number of alternative organizational structures be discussed. One option, adopting a quasi-independent organizational structure similar to those employed by the Mental Health, Mental Retardation and Developmental Disabilities, and Alcohol and Drug Addiction Services Boards was mentioned frequently as worth further exploration. These entities have independent Boards of Directors whose members are appointed by the County Commissioners.

Concerns about the ECI's staffing were also raised by several interviewees. The Initiative was initially launched from within the Cuyahoga County Family and Children First Coalition, from which strong staffing was provided. Promotions and transition of key staff resulted in the Initiative currently having neither a full-time director nor staff whose time is dedicated solely to administering the ECI. Respondents suggested that the commencement of this next phase in the life of the Initiative would be an appropriate opportunity for assessing staffing and administrative needs.

Funding

As stated previously, the Initiative faces serious pressure in outlying years to continue to raise the funds required to support its service infrastructure. Forthcoming funding discussions will most certainly revolve around public and private sectors' respective roles in providing the funds required for continuance and expansion.

Several interviewees suggested strongly that the long-term responsibility for providing the resources required to sustain the ECI rests with the public sector. One individual said straightforwardly that foundation funds can be counted on as seed money for new programs that might be launched to fill gaps in the service network, but not as ongoing operating support for the Initiative. Discussions with the respondents revealed that many think the most realistic source of ongoing funding for the ECI is an increase in the millage of the county's health and human services levy. This would provide the Early Childhood Initiative with a renewable, dedicated, local funding stream and enable the private sector funders to focus resources on innovation, a more attractive role for foundations.

Clearly, if a levy increase is embraced as the ECI's long range funding strategy, issues of leadership, governance, and communication become somewhat more urgent. Creating a broad base of support for the Initiative from within the civic infrastructure would appear to be crucial to agreement on support for a tax hike and subsequently working to ensure levy passage. The need for increased buy-in on the part of business and civic leaders to the ECI's vision and mission might also be reflected in forthcoming governance decisions.

Communications

Responses from interviewees on this issue of the ECI's external communications strategy suggest that it has lacked clarity with respect to the intended audiences and expected results of these efforts. Future planning might be guided by the fact that there are multiple audiences and purposes.

If a levy increase is selected as the most promising long-term funding option for the ECI, a new communications strategy will be required to increase awareness of the vision, strategy, and outcomes of the Initiative among the voting public. While the Health and Human Services Levy has always enjoyed a firm base of support in Cuyahoga County, increasing millage during an economic downturn will require strong marketing. This task will benefit from the name recognition and positive perception of Welcome Home and other universally available programs. The prospect of a levy campaign to generate support for the ECI might also present an opportunity to discuss alternatives to the Initiative's somewhat unwieldy name.

A different public communications strategy is required to seed recognition of the ECI's programs among potential service users. Many respondents, who might be expected to be sensitized to ECI's outreach materials, could not remember seeing or hearing any public communications messages during the past year. During this next phase of the Initiative, it might be appropriate to assess the effectiveness of these strategies among the target audiences and to modify the strategies accordingly.

Recommendations

One might well conclude from this study that the Early Childhood Initiative, mirroring the child development process, has passed through its infancy, is on its feet, and is transitioning into its next developmental phase. While it has enjoyed a strong base of support in its early years, lingering questions about its long-term financial base, the breadth of leadership required to solidify its community position, its structure, governance, and staffing are now clamoring for guidance and resolution. And, like all toddlers, the ECI is exploring the limitations of its relationship with its early parental leadership.

Given that funding for the Initiative over the next two years is now assured, this period might best be used to effect a planful transition into the ECI's next organizational phase.

- *Recommendation I: Convene a strategic planning process that involves the Initiative's major stakeholders.* The next two years presents an opportunity for the ECI to assess future issues and develop strategies that can be initiated during a period of relative calm.
- *Recommendation II: Slow the pace of change and allow the services integration strategy time to fully develop.* One of the most consistent messages from the respondents was the stress engendered by innovating, implementing, evaluating, and pressing for results on a very quick timetable. Care must be taken that, after the maelstrom of rapid change, key personnel are given sufficient opportunity to regroup so as not to burn out in exhaustion. It was additionally noted that the ECI's strategies need time to meet quality standards and mature, and that only in years to come would they be able to demonstrate an impact on community-wide indicators.
- *Recommendation III: Emphasize the ongoing need for collaboration between evaluators and program directors towards the goal of creating a "learning organization."* The purpose(s) and planned use of the evaluation findings need to be clearly articulated across all levels of the Initiative to facilitate their use as tools for program improvement.
- *Recommendation IV: Clarify the expected future role of the private sector funders.* Part of the ECI's transition process will entail a shift in the role of private foundations. The nature of this shift (for example, from providing operating support to funding innovations and add-ons) should be clarified within the next 2 years.
- *Recommendation V: Share the lessons learned.* The start-up phase of the ECI was an extraordinarily ambitious undertaking that was played out in a diverse urban county amidst the pressures of managing welfare reform. Over time, and with reflection, those who were responsible for its successful implementation will have much to share with communities interested in replication. Time and funds might well be set aside to enable the Initiative, especially agency directors, to disseminate the findings from their experiences.

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